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Evaluating measures adopted by French language educators and students in coping with infrastructural problems of ICT use in four West African universities

Abstract

The study evaluated measures that French language educators and students in West African university establishments adopted to cope with problems of inadequate infrastructure in the use of ICTs in class. The sample was made up of 37 French language educators and 251 French language students from all government universities in two Anglophone and three francophone countries in West Africa who adequately filled out the questionnaires. Descriptive survey design was adopted. The instruments were structured questionnaires, observation and interview schedules. Data collected were analyzed using simple percentages and inferential statistics. A major finding from the study was that infrastructural problems of ICTs use in French language teaching and learning in West Africa are real and far from solved. This has adversely affected not only research and development, but especially quality teaching and its delivery mechanisms. The study recommended that French language educators source for and utilize teaching approaches and strategies that put students in real situations of language use.

Introduction

Information and Communication Technology (ICT) is a change agent in the emerging information economy. It has revolutionized the society, though less pronounced in the developing countries where there is high information technology – development gap. ICT has permeated all aspects of life and taken man beyond his capabilities. Every aspect of human endeavour has made giant strides from ICTs in the areas of banking, commerce, entertainment, business, etc., where it has enhanced the quality of services.

ICTs in teaching and learning can be used to enhance the productive capacity of the teacher and increase the scope and quality of learning at all levels. Teachers and learners no longer have to rely solely on printed books and other materials in physical media housed in libraries and available in limited quantities for their educational needs. With the Internet, a wealth of learning materials in almost every subject and in a variety of media can now be accessed from anywhere at any time of the day and by an unlimited number of people (Tinio, 2007: 21). With the increasing awareness of ICTs and use in language learning, teachers, students and institutions in Anglophone and Francophone countries alike can benefit from maximum utilization of these tools not only to promote the communicative competence of language students but most importantly, to help them attain the only reasonable aim of education which according to Haddad & Draxler (2002, p.14) include *the ability of learners to think independently, exercise appropriate judgment and scepticism, and collaborate with others to make sense of their changing environment*. But the level of the various governments in the West African sub-region in terms of commitment, funding, human resource development, actionable ICT policies and the implementation measures leave much to be desired.

It is believed that the use of ICTs in education generally, and in modern language teaching and learning in particular, will help to close the digital divide between the developed and developing

economies in terms of sourcing of information, knowledge acquisition and the subsequent technological development (Tinio, 2007).

It has to be noted however that the benefits to be derived from the use of various ICT tools are not automatic. Infrastructure in general is very crucial for successful teaching and learning. It is no longer news that most African universities are seriously constrained in the use of ICT by a lack of computer stations and a lack of access to affordable high-speed Internet connectivity (Gakio, 2006). Africa suffers from a pronounced infrastructure deficit. Compared with other countries in other regions, African countries have a low stock of infrastructure particularly in energy and transportation (ADBG, 2014). Many African countries have a very low base from which to implement ICT interventions in education (African Development Forum, 1999 as quoted in Howell and Lundall, 2000).

The principal factors that prevent schools from using ICTs as tools for teaching and learning are insufficient funds, irregular power supply, inadequate security services, insufficient number of computers, lack of computer literate teachers, high telephone and internet costs, lack of teacher competency in integrating ICTs into different learning areas, the absence of properly developed curricula for teaching computer skills and lack of enabling policy environment (Howell & Lundall, 2000; Isaacs, 2002). Teachers' weak knowledge of computers was a more critical factor than lack of time to prepare lessons using computers and insufficient numbers of computers (Becker, 1990).

However, the use of computers and the Internet is still in its infancy in developing countries, if these are used at all, due to limited appropriate infrastructure such as telephony and electricity; in most countries, access is limited and slow, where broadband is available, it is typically very expensive – far beyond the financial means of majority of Africans; Africa's limited exposure to ICTs, the attendant high costs of access and generally underserved populations. Further, a common belief is that time is needed to develop familiarity with computers and their possibilities before computer technology will restructure classroom activities (Isaacs, Broekman & Mogale, 2004; Jegede, Okebukola & Agewole, 2005; Tinio, 2007; Williams, 2011; IFC, 2012).

Moreover, only 30% of Africa's population has access to electricity, compared with 70% to 90% in other regions of the world, and its internet penetration rate is only about 6%, compared with an average of 40% elsewhere (ADBG, 2014).

Research on the use of ICTs in different educational settings over the years identifies as a barrier to success, the inability of teachers to understand why they should use ICT tools and how exactly they can use ICTs to help them teach better. Unfortunately, most teacher professional development programmes in ICTs are heavy on “teaching the tools” and light on “using the tools to teach” (MacDougall & Squires, 1997, cited in Tinio, 2007). Again, teacher anxiety over being replaced by technology or losing their authority in the classroom as the learning process becomes more learner-centred is an acknowledged barrier to ICT adoption (Tinio, 2002; Davies, 2002; Maduekwe, 2006; Haddad, 2007).

Moreover, some practising teachers who embraced and employed ICT tools for teaching and learning purposes have voiced out the benefits of exploring the potentials of these valuable ICTs in the classroom, especially in the area of improving learners' writing skills. One of the teachers noted:

Je suis convaincue des bienfaits des TIC sur la maîtrise de la langue écrite ... L'on dit qu'on apprend à écrire en écrivant. Il est impressionnant de constater que les élèves qui n'aiment pas écrire sont unanimes à dire que le blogage est une activité scolaire intéressante, qu'ils font des efforts pour mieux écrire lorsqu'ils le font pour leur blogue et que les blogues sont utiles à l'apprentissage (Rioux, 2008 : 9).

However, Africa recorded a remarkable success in the provision of mobile telephone coverage, where availability and quality of service have gone up and the cost has gone down. In just 10 years – dating from the end of the 1990s – mobile network coverage rose from 16% to 90% of the urban population; by 2009, the rural coverage stood at just under 50% of the population (IFC, 2012).

The problem

The use of various ICTs as tools for teaching and learning in most West African universities have been marred by problems ranging from insufficient funds to lack of computer literate teachers; in the face of all these problems, French language educators and students in the sub-region are not expected to fold their arms and wait endlessly for their institutions or governments to provide them with these basic infrastructure, but have been given the great task of devising adequate measures of coping with these teething problems as they strive to use ICTs in the classrooms. How have they fared with this onerous task?

The **purpose** of this study was to compare the measures French language educators and learners in four university establishments in West Africa adopted to cope with the problems of inadequate ICT infrastructure for teaching and learning purposes.

Research objectives

The main objective of this study was to evaluate the measures French language educators and learners in four university establishments in Nigeria, Ghana, Togo and Senegal have adopted to cope with the infrastructural problems of ICTs use in teaching and learning. The study also evaluated the effectiveness of the adopted measures in improving the quality of French language teaching and learning.

Research questions

- What measures have French language educators and learners in the selected four university establishments adopted to cope with the infrastructural problems of the use of ICTs in teaching and learning?
- How effective are these measures in improving the quality of French language teaching and learning?

Significance of the Study

The findings from this study will be significant in the following ways:

- help French language educators to appreciate the need to adopt teaching strategies that put French language learners in real situations of language use to enrich learning;
- assist French language learners to develop appropriate strategies to learn independently with the support of available ICTs, especially cell phones, thus being autonomous and architects of their own learning;
- the study would offer useful tips to both French language educators and learners on how to take advantage of new teaching and learning strategies and techniques that are compatible with available ICT hardware and software to arouse and sustain the interest of learners, and thus to promote the actual use of French language in different situations and contexts. This way, French language learners would be able to use language learnt in classroom situations for communication purposes;
- a discussion of the findings of the study would contribute to the growing body of literature on the subject since it is obvious from literature that the disparity between ICT use and potential skills is an international issue.

Methodology

The study adopted the descriptive survey design and was centred on French language educators and students operating in four West African university establishments in Nigeria, Ghana, Togo and

Senegal. The sample comprised 37 educators (30 males and 7 females) and 251 students (113 males and 138 females). To ensure that only French language educators and students who have had enough experience on teaching and learning with basic ICT tools were included in the study, the researcher only considered educators who have taught for a minimum of two years and students in their second year of study upwards who adequately filled out the questionnaires. Three data collection instruments were used: a researcher-designed structured questionnaire, an observation and interview schedules. There were two types of questionnaires, one for the educators and the other for the students. The questionnaires which were written in English and French languages were divided into sections. The first section contained a brief explanation of the purpose of the study, its potential usefulness, assurance of confidentiality, assumptions of anonymity, and an appeal to the respondents to fill out the questionnaires as objectively as possible. This was followed by a few background information questions on the respondents' biographical data. The other section of the questionnaire contained statements to elicit responses on the research questions and hypothesis of the study. The items were designed along a 4-point Likert scale in which the educators and students were required to indicate the extent of their agreement or otherwise to each of the statements made. The maximum point obtainable on the items in these sections of the questionnaires was 4, while the minimum was one. The observation schedule was used to observe directly classroom activities leading to a more objective evaluation of the educators and students adopted strategies for coping with the problems of inadequate ICT infrastructure in their various universities. In all, 36 hours of classroom observation was undertaken. The interview schedule had 12 items divided into three distinct sections. The first section aimed at gathering information on the frequency of use of available ICT tools to improve teaching and learning. The second section sought to assess the extent of collaboration among educators themselves and with the Alliance Française in their locality, while the third section focused on the use of ICT compatible techniques and strategies that put students in real situations of language use. Only 20 French language educators accepted to participate in individual interviews of 20 minutes each. The three instruments were validated by three language experts (professor and two senior lecturers) in French and English languages from the Department of Arts and Social Sciences Education and an expert in statistics (a professor of Mathematics), all from the University of Lagos, Nigeria. The use of different sources of data collection was aimed at increasing the internal validity of obtained results and also verifying the authenticity of data collected. The reliability coefficients of 0.837 for the educators and 0.86 for the students' questionnaires were ascertained using Cronbach Alfa coefficient (2-tailed) at 0.05 level of significance to estimate the internal consistency reliability of the instruments. It took the researcher 15 to 17 days to administer these instruments in each of the universities visited.

Data analysis procedure

The statistical Package for the Social Sciences (SPSS), a statistical software package most commonly used in Applied Linguistics and educational research (Dörnyei, 2007) was adopted for the data analysis of this study. Simple descriptive statistics was used to summarize the findings of this study. Simple percentages were computed in order to present the data that were collected.

Comparing various groups of people is the most common statistical procedure in applied linguistics research (Lazaraton, 2005, quoted in Dörnyei, 2007). Hence, the independent-samples t-tests were computed to compare the scores obtained from respondents from Anglophone and Francophone universities respectively with a view to checking the generalizability of the results and to ascertaining whether the scores obtained were merely artefacts of random variation. 'Confidence intervals' and 'effect size' were also computed to examine the importance of the obtained scores and to provide information about the magnitude of the observed phenomenon.

Inferential statistics, the one-way Analysis of Variance (ANOVA) was used to test the null hypothesis of the study. It was computed to assess the significance of the differences in the means of data collected from the Anglophone and Francophone universities; and also to judge if the null hypothesis could be rejected or not, on the evidence of the said data. The most common effect size indicator for

ANOVA is ‘eta squared’; and is calculated using the formula: sum of squares between groups over total sum of squares, and the usual interpretation of eta squared is around 0.01 = small effect; around 0.06 = moderate effect and around 0.14 = large effect (Pallant, 2005, cited in Dörnyei, 2007: 221). Data collected from both the observation and interview schedules were analyzed qualitatively only.

Results

Statistical Analyses and Interpretation of French Language Educators’ Responses

Table 1: Measures adopted by French Language Educators in Anglophone Universities to cope with infrastructural problems of ICTs use n = 14

Possible Measures	University	RESPONSE SCALE			
		Always	Sometimes	Rarely	Never
		F (%)	F (%)	F (%)	F (%)
The Department purchased a generating set to power available ICT tools	Nigeria	1 (20.0)	2 (40.0)	0 (0.0)	2 (40.0)
	Ghana	4 (44.5)	2 (22.2)	1 (11.1)	2 (22.2)
I maximize electricity use anytime it's available	Nigeria	1 (20.0)	0 (0.0)	0 (0.0)	4 (80.0)
	Ghana	0 (0.0)	0 (0.0)	1 (11.1)	8 (88.9)
I purchased my own laptop/computer for use in class	Nigeria	3 (60.0)	2 (40.0)	0 (0.0)	0 (0.0)
	Ghana	0 (0.0)	4 (44.4)	5 (55.6)	0 (0.0)
I subscribed to a local Internet provider	Nigeria	4 (80.0)	0 (0.0)	1 (20.0)	0 (0.0)
	Ghana	4 (44.5)	2 (22.2)	2 (22.2)	1 (11.1)
I make good use of radio sets in class	Nigeria	3 (60.0)	2 (40.0)	0 (0.0)	0 (0.0)
	Ghana	1 (11.1)	0 (0.0)	2 (22.2)	6 (66.7)
I maximize the use of cell phones with Internet facility	Nigeria	1 (20.0)	2 (40.0)	0 (0.0)	2 (40.0)
	Ghana	0 (0.0)	2 (22.2)	3 (33.3)	4 (44.5)
I make good use of services of Alliance Française	Nigeria	0 (0.0)	4 (80.0)	0 (0.0)	1 (20.0)
	Ghana	1 (11.1)	1 (11.1)	1 (11.1)	6 (66.7)
I utilize strategies that put learners in situations of language use	Nigeria	1 (20.0)	1 (20.0)	0 (0.0)	3 (60.0)
	Ghana	1 (11.1)	0 (0.0)	5 (55.6)	3 (33.3)
I give learners tasks, projects etc. to be presented in class	Nigeria	5 (100.0)	0 (0.0)	0 (0.0)	0 (0.0)
	Ghana	6 (66.7)	2 (22.2)	1 (11.1)	0 (0.0)
We continue to appeal to the Head of Department to provide	Nigeria	5 (100.0)	0 (0.0)	0 (0.0)	0 (0.0)
	Ghana	6 (66.7)	2 (22.2)	1 (11.1)	0 (0.0)

Table 2: Measures adopted by French Language Educators in Francophone Universities to cope with infrastructural problems of ICTs use n = 23

Possible Measures	University	RESPONSE SCALE			
		Always	Sometimes	Rarely	Never
		F (%)	F (%)	F (%)	F (%)
The Department purchased a generating set to power available ICT tools	Togo	6 (75.0)	0 (0.0)	0 (0.0)	2 (25.0)
	Senegal	3 (20.0)	4 (26.7)	2 (13.3)	6 (40.0)
I maximize electricity use anytime it's available	Togo	0 (0.0)	0 (0.0)	0 (0.0)	8 (100.0)
	Senegal	1 (6.7)	2 (13.3)	1 (6.7)	11 (73.3)
I purchased my own laptop/ computer for use in class	Togo	0 (0.0)	1 (12.5)	1 (12.5)	6 (75.0)
	Senegal	4 (26.7)	4 (26.7)	2 (13.3)	5 (33.3)
I subscribed to a local Internet provider	Togo	2 (25.0)	0 (0.0)	1 (12.5)	5 (62.5)
	Senegal	4 (26.7)	3 (20.0)	3 (20.0)	5 (33.3)
I make good use of radio sets in class	Togo	0 (0.0)	0 (0.0)	1 (12.5)	7 (87.5)
	Senegal	4 (26.7)	2 (13.3)	1 (6.7)	8 (53.3)
I maximize the use of cell phones with Internet facility	Togo	2 (25.0)	0 (0.0)	1 (12.5)	5 (62.5)
	Senegal	1 (6.7)	2 (13.3)	2 (13.3)	10 (66.7)
I make good use of services of Alliance Française	Togo	0 (0.0)	3 (37.5)	0 (0.0)	5 (62.5)
	Senegal	1 (6.7)	5 (33.3)	4 (26.7)	5 (33.3)
I utilize strategies that put learners in situations of language use	Togo	1 (12.5)	1 (12.5)	0 (0.0)	6 (75.0)
	Senegal	1 (6.7)	3 (20.0)	0 (0.0)	11 (73.3)
I give learners tasks, projects etc. to be presented in class	Togo	3 (37.5)	1 (12.5)	0 (0.0)	4 (50.0)
	Senegal	4 (26.7)	3 (20.0)	1 (6.7)	7 (46.6)
We continue to appeal to the Head of Department to provide	Togo	1 (12.5)	3 (37.5)	0 (0.0)	4 (50.0)
	Senegal	5 (33.3)	4 (26.7)	1 (6.7)	5 (33.3)

From the tables above, only 60% and 26.7% of the educators from Nigeria and Senegal claimed to have purchased a personal laptop for use in teaching. However, it was observed that only two Ghanaians actually used their personal laptops and video projectors in teaching. Again, a good number of the Anglophone educators in Nigeria (100%) and Ghana (66.7%) employed the use of tasks, projects, etc. more than their Francophone counterparts in Togo (37.5%) and Senegal (26.7%). Surprisingly, only a negligible few of the French language educators 20%, 11.1%, 12.5% and 6.7% in Nigeria, Ghana, Togo and Senegal respectively always used teaching strategies and techniques that put students in real situations of language use.

Table 3: Independent samples t-test on measures adopted by the educators to cope with infrastructural problems of ICTs use

Research Hypothesis: Measures adopted by French language educators in Anglophone universities do not have more significant impact on the quality of French language teaching than those of their Francophone counterparts.

Group Statistics										
		LANGUAGE	N	Mean	Std. Deviation	Std. Error Mean				
Measures adopted by Educators		ANGLOPHONE	14	1.3010	.42135	.11261				
		FRANCOPHONE	23	.9348	.79886	.16657				
Independent Samples Test										
		Levene's Test for Equality of Variances		t-test for Equality of Means						
		F	Sig.	t	Df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
									Lower	Upper
Measures adopted by Educators	Equal variances not assumed	12.977	.001	1.821	35	.077	.36624	.20107	-.04216	.77463

The test at 5% significance level shows no statistically significant difference in the mean scores of Anglophone and Francophone French language educators. The p value of 0.077 was greater than 0.05, therefore, the null hypothesis was accepted indicating that the French language educators in the Anglophone universities did not employ better measures to cope with the infrastructural problems of ICT use in teaching than their Francophone counterparts.

Table 4: One-way ANOVA: Comparing various measures adopted by French Language Educators among institutions

Descriptives								
	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum
					Lower Bound	Upper Bound		
NIGERIA	5	1.7000	.38927	.17409	1.2167	2.1833	1.14	2.14
GHANA	9	1.0794	.24076	.08025	.8943	1.2644	.64	1.50
TOGO	8	.6964	.66102	.23371	.1438	1.2491	.00	1.64
SENEGAL	15	1.0619	.85709	.22130	.5873	1.5365	.00	2.14
Total	37	1.0734	.69752	.11467	.8408	1.3059	.00	2.14

Table 5: Main ANOVA

	Sum of Squares	Df	Mean Square	F	Sig.
Between Groups	3.102	3	1.034	2.368	.089
Within Groups	14.413	33	.437		
Total	17.515	36			

The p-value comparing the groups is greater than 0.05 confirming that there is no statistically significant difference in the mean scores of the four groups.

Statistical Analyses and Interpretation of French Language Students' Responses

Table 6: Measures adopted by French language students in Anglophone Universities to cope with infrastructural problems of ICT use n = 127

Possible Measures	University	RESPONSE SCALE			
		Always	Sometimes	Rarely	Never
		F (%)	F (%)	F (%)	F (%)
I maximize electricity use anytime it's available	Nigeria	16 (25.8)	24 (38.7)	5 (8.1)	17 (27.4)
	Ghana	6 (9.2)	22 (33.8)	22 (33.8)	15 (23.1)
I purchased my own laptop/computer for use in class	Nigeria	27 (43.5)	9 (14.5)	7 (11.3)	19 (30.6)
	Ghana	34 (52.3)	19 (29.2)	0 (0.0)	12 (18.5)
I subscribed to a local Internet provider	Nigeria	22 (35.5)	14 (22.6)	6 (9.7)	20 (32.3)
	Ghana	22 (33.9)	21 (32.3)	8 (12.3)	14 (21.5)
I make good use of radio sets in class	Nigeria	39 (62.9)	15 (24.2)	6 (9.7)	2 (3.2)
	Ghana	29 (44.6)	22 (33.8)	9 (13.8)	5 (7.8)
I maximize the use of cell phones with Internet facility	Nigeria	35 (56.5)	12 (19.4)	9 (14.5)	6 (9.6)
	Ghana	32 (49.2)	19 (29.2)	5 (7.8)	9 (13.8)
I use public cybercafés	Nigeria	30 (48.4)	26 (41.9)	5 (8.1)	1 (1.6)
	Ghana	7 (10.8)	40 (61.5)	10 (15.4)	8 (12.3)
I make good use of services of Alliance Française	Nigeria	3 (4.8)	11 (17.7)	13 (21.0)	35 (56.5)
	Ghana	4 (6.1)	26 (40.0)	18 (27.7)	17 (26.2)
I engage in French blogs, chats, forums, etc.	Nigeria	8 (12.9)	21 (33.9)	15 (24.2)	18 (29.0)
	Ghana	12 (18.5)	23 (35.4)	16 (24.6)	14 (21.5)

Table 7: Measures adopted by French language students in Francophone Universities to cope with infrastructural problems of ICT use n = 124

Possible Measures	University	RESPONSE SCALE			
		Always	Sometimes	Rarely	Never
		F (%)	F (%)	F (%)	F (%)
I maximize electricity use anytime it's available	Togo	3 (4.5)	17 (25.8)	16 (24.2)	30 (45.5)
	Senegal	2 (3.4)	6 (10.3)	8 (13.8)	42 (72.4)
I purchased my own laptop/computer for use in class	Togo	3 (4.5)	22 (33.3)	15 (22.7)	26 (39.5)
	Senegal	11 (19.0)	16 (27.6)	8 (13.8)	23 (39.6)
I subscribed to a local Internet provider	Togo	16 (24.2)	19 (28.8)	9 (13.6)	22 (33.4)
	Senegal	21 (36.2)	9 (15.5)	5 (8.6)	23 (39.7)
I make good use of radio sets in class	Togo	4 (6.1)	11 (16.7)	14 (21.2)	37 (56.0)
	Senegal	8 (13.8)	3 (5.2)	4 (6.9)	43 (74.1)
I maximize the use of cell phones with Internet facility	Togo	31 (47.0)	13 (19.7)	7 (10.6)	15 (22.7)
	Senegal	24 (41.5)	6 (10.3)	10 (17.2)	18 (31.0)
I use public cybercafés	Togo	18 (27.3)	11 (16.7)	14 (21.2)	23 (34.8)
	Senegal	12 (20.7)	7 (12.1)	9 (15.5)	30 (51.7)
I make good use of services of Alliance Française	Togo	12 (18.2)	26 (39.4)	13 (19.7)	15 (22.7)
	Senegal	7 (12.1)	18 (31.0)	13 (22.4)	20 (34.5)
I engage in French blogs, chats, forums, etc.	Togo	3 (4.5)	18 (27.3)	12 (18.2)	33 (50.0)
	Senegal	2 (3.4)	4 (6.9)	12 (20.7)	40 (69.0)

The data presented above show that some of the learners (22.5% - Nigerians); (46.2% - Ghanaians); (57.6% - Togolese) and (43.1% - Senegalese) made good use of the services of Alliance Française in their locality. More French language learners in the Ghanaian university (81.5%) than their mates in Nigeria (58%), Togo (37.8%) and Senegal (46.6%) claimed to have bought their own computers or laptops. Surprisingly, more of the French language learners in the Anglophone universities (Nigeria – 87.1%; Ghana – 78.4%) than in the Francophone universities (Togo – 22.8%; Senegal – 19%) made good use of the radio sets for learning purposes. Similarly, more Anglophones (Nigeria – 46.8%; Ghana – 53.9%) than Francophones (Togo – 31.8%, Senegal – 10.3%) engaged in blogs, chat rooms and discussion forums for self-enrichment. However, a good number of the student respondents, 75.9%, 78.4%, 66.7% and 51.7% from Nigeria, Ghana, Togo and Senegal respectively maximized the use of cell phones with Internet facilities to garner new vocabularies.

Table 8: Result of the independent samples t-test on measures adopted by the learners

Research Hypothesis: Measures adopted by French language learners in Anglophone universities do not have more significant impact on the quality of French language learning than those of their Francophone counterparts.

Group Statistics										
		LANGUAGE	N	Mean	Std. Deviation	Std. Error Mean				
Measures adopted by French language students		ANGLOPHONE	127	1.6729	.52352	.04645				
		FRANCOPHONE	124	1.1979	.71441	.06416				
Independent Samples Test										
		Levene's Test for Equality of Variances		t-test for Equality of Means						
		F	Sig.	T	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
									Lower	Upper
Measures adopted by French language students	Equal variances not assumed	15.276	.000	5.996	249	.000	.47492	.07921	.31884	.63101

The result shows that a statistically significant difference exists between the mean scores of Anglophone and Francophone French language learners. The p value was less than 0.05 resulting in the rejection of the null hypothesis.

Table 9: One-way ANOVA: Comparing measures adopted by French Language Students to cope with infrastructural problems of ICTs use among Institutions

Descriptives	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum
					Lower Bound	Upper Bound		
NIGERIA	62	1.6290	.48113	.06110	1.5068	1.7512	.82	2.73
GHANA	65	1.7147	.56152	.06965	1.5755	1.8538	.00	2.55
TOGO	66	1.3058	.74003	.09109	1.1239	1.4877	.00	2.45
SENEGAL	58	1.0752	.66937	.08789	.8992	1.2512	.00	2.64
Total	251	1.4382	.66772	.04215	1.3552	1.5213	.00	2.73

Table 10: Main ANOVA

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	16.025	3	5.342	13.825	.000
Within Groups	95.437	247	.386		
Total	111.462	250			

The ANOVA summary table showed that the p-value is less than 0.05 indicating that the difference in the mean scores of the four university groups is statistically significant and there were significant differences among learners' measures across countries.

Table 11: Post Hoc Tests

Multiple Comparisons						
Measures adopted to cope with infrastructural problems of icts use						
LSD						
(I) INSTITUTION	(J) INSTITUTION	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
NIGERIA	GHANA	-.08565	.11035	.438	-.3030	.1317
	TOGO	.32325*	.10994	.004	.1067	.5398
	SENEGAL	.55380*	.11355	.000	.3301	.7774
GHANA	NIGERIA	.08565	.11035	.438	-.1317	.3030
	TOGO	.40890*	.10862	.000	.1950	.6228
	SENEGAL	.63945*	.11228	.000	.4183	.8606
TOGO	NIGERIA	-.32325*	.10994	.004	-.5398	-.1067
	GHANA	-.40890*	.10862	.000	-.6228	-.1950
	SENEGAL	-.23055*	.11188	.040	-.0102	.4509
SENEGAL	NIGERIA	-.55380*	.11355	.000	-.7774	-.3301
	GHANA	-.63945*	.11228	.000	-.8606	-.4183
	TOGO	-.23055*	.11188	.040	-.4509	-.0102

*. The mean difference is significant at the 0.05 level.

The Post hoc tests show that the mean scores of French language learners in the Anglophone universities are significantly higher than those of their Francophone counterparts, while the mean scores of French language learners in Togo are equally significantly higher than that of their counterparts in Senegal. The effect size of 0.14 is large indicating that the magnitude of the difference cannot be ignored.

Observation/Interview Schedules

It was observed that French language educators were provided with desktop computers by their departments, and some have personal laptops, yet only a handful used computers for lecture preparation (41%) and delivery (23.5%). Those interviewed (100%) unanimously pointed out that lack of training in the practical use of computers for teaching and irregular power supply were major barriers to their use of available ICT tools in class.

On the level of collaboration with Alliance Française in their locality, the educators interviewed confirmed that they did not always source for instructional materials from the centre. A non-negligible number (37.7% and 34.7%) sometimes visited the centre while (50% and 43.5%) from the Anglophone and Francophone university establishments respectively never made use of the rich resources in the centre.

On the adoption of teaching methods/strategies that put students in real situations of language use, it was observed that only 10 (27%) of the 37 educator respondents had fully adopted some of these strategies through the use of tasks, activities and projects that students realised either individually or in small groups and presented in class. The educators interviewed (64.2%) noted that the use of these strategies helped students a lot in developing their communicative competence and writing skills.

The other results of the observation and interview schedules were also used to consolidate and enrich the discussion section of this paper.

Discussion

It has already been established in literature (ADBG, 2014; Gakio, 2006) that insufficient infrastructure in schools is one of the biggest threats to the effective use of the various ICT tools in teaching and learning. Hence, the researcher sought to find out what French language educators in the sub-region were doing or had done to cope with these problems in the class. This study shows that the various measures these educators in both the Anglophone and Francophone universities have adopted to cope with the infrastructural problems of ICT use for the purposes of teaching and learning were very inadequate.

Most of the educators noted that they purchased their own laptops for use in teaching. The study indicates the need for educators not to stop at buying ICT tools only, but to go a step further to actually utilizing these tools for the purposes of teaching and learning, thereby helping their learners to deepen understanding and develop their communicative skills (Rioux, 2008).

The irregular power supply was identified in literature (Howell & Lundall, 2000; ADBG, 2014) as one of the principal factors that prevent schools from integrating ICTs into different learning areas. Yet, majority of the educator respondents in Nigeria (80%), Ghana (88.9%), Togo (100%) and Senegal (80%) never purchased a generating set to power available resources nor did they maximize electricity use anytime it is available. However, their responses were expected since of all the four countries, Nigeria is the only country where electricity supply is like snow fall in Africa South of the Sahara. The government of Nigeria is hereby called upon to take proactive measures to end this problem of epileptic power supply to its citizenry; hence, without electricity even the available ICT hardware and software in schools cannot be put to good use to enhance the quality of teaching and learning.

French language educators and learners are reminded that Alliance Française was established principally to disseminate French language teaching and learning across the globe, thus, they should avail themselves of the presence of this body in their locality to access current teaching and learning materials (books, audio & video CDs/DVDs, comic strips, etc.) to improve on existing practices. The educators' responses show an obvious lack of use of these products and services especially in Ghana (66.7%) and Togo (62.5%).

Surprisingly, one would have expected that French language educators, especially those in the Anglophone universities utilize those teaching approaches and strategies that put learners in real situations of language use through tasks or projects to be executed and presented before a panel in class. This will help learners to develop not just the oral and written skills but also communicative skills as they learn to present their thoughts and ideas in convincing ways that their listeners would understand. It was sad to note that a very high percentage of these educators in Nigeria (60%), Ghana (88.9%), Togo (75%) and Senegal (73.3%) never or rarely used these strategies. These Anglophone learners really need to be helped to overcome the initial inertia and fear associated with using French language in speech through the use of strategies that substantially expose them to constant use of French language in communication. However, a good number of these educators in Nigeria (100%) and Ghana (66.7%) attested to using tasks and projects in class. This is a step in the right direction, and should be encouraged and sustained.

The research findings also revealed that some of the French language learners in both the Anglophone and Francophone universities had not crossed their arms waiting for government or their institutions to provide them with the requisite ICTs for French language teaching and learning, but have gone a step further on their own to devise means of coping with the infrastructural barriers to ICTs use. They maximized the use of their radio sets and cell phones; while a few of them used regularly the services of Alliance Française in their locality and purchased personal laptops or PCs. It is essential that these learners be encouraged and supported in their efforts to enhance the quality of learning and become better communicators and users of French language. French language educators are also encouraged to explore the use of mobile telephones for the purposes of teaching and learning since it has been established in literature that majority (90%) of Africans in urban areas now have access to this device (IFC, 2012).

Unfortunately, some of the educators in Nigeria (40%), Ghana (44.4%), Togo (62.5%) and Senegal (66.7%) never maximized the use of cell phones with Internet facilities for the purposes of teaching and learning. Mobile phones are effective learning ICT tools (m-learning) as they give learners the opportunity to learn in motion, thereby having at their disposal a wide range of facilities including e-dictionaries, search engines, online radio, television and newspaper broadcasts, etc. (Anderson, 2010).

These are invaluable assets for language learners that can be effectively utilized in the development of oral, written and listening skills. French language learners and educators thus have at their fingertips tools that transcend time and space to make learning more motivating and interesting. And what is more, most of these mobile phones have facilities that offer Internet browsing with gadgets that could be connected to laptops and PCs for wider view. French language educators and learners are called upon to make good use of these ICT tools to improve learning outcomes.

Conclusion and Recommendations

French language educators and learners are aware of the potentials of the various ICT tools to enhance the quality of French language teaching and learning but have not fully understood nor do they actually appreciate the need to change their current teaching and learning methods and strategies to align them with the modern ones that are ICT compatible. This is evident in their inability to devise appropriate measures of coping with the inadequate supply of ICT infrastructure and improving the quality of French language teaching and learning in their various universities.

French language educators need to recognize the fact that their learners have limited opportunities to put the knowledge gained in classroom situations into practice. Therefore, they should employ more of tasks and activities as well as use teaching strategies that put French language learners in real situations of language use to build up their self-confidence to speak French.

It is recommended that French language educators create learning situations that will lead learners to express themselves without boundaries using word lists, reading of short novels, radio and television broadcasts, discussions, tasks, projects, etc. This could be just what is needed to bring the learners out of their cocoons, untie their tongues, allay their fears and boost their self-confidence to speak the target language. In view of the fact that French language learners especially those in Anglophone countries have limited avenues from which to garner sufficient vocabularies needed for effective communication, it is recommended that French language educators help these learners to attain proficiency by employing ICT-compatible strategies to stimulate their appetite to learn, sustain that appetite and expose them to use knowledge gained in classroom situations to express themselves.

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