Enhancing the Motivation to Learn the Igbo Language and Culture: The Use of Computer assisted Language Learning

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Abstract

Technological innovation and the advancement of new language teaching pedagogies culminating in the Computer Assisted Language Learning (CALL) have had tremendous impact on the teaching and learning of languages, beyond the English language. To make learning of Igbo language and culture enjoyable, productive and effective, it is necessary to benefit from the opportunity that technology provides us with. Therefore, CALL in teaching the Igbo language is imperative in order to maintain pace with global changes. This study uses a developed CALL multimedia intervention package named ILLMuPac (Igbo Language Learning Multimedia Package) to determine the impact of CALL on the teaching and learning of Igbo and cultural heritage. It assesses the effect of the CALL package on junior secondary school (JSS) students' motivation to the learning of Igbo and the cultural heritage of the Igbo people of the southeast Nigeria. Adopting a descriptive survey, the study raised three research questions and tested two hypotheses which were answered using data collected from 5 Igbo language teachers as well as 45 JSS students. Students' Motivation to learn the Igbo Language and Cultural Heritage Inventory was the research instrument used for the study. Data were analyzed using frequencies, percentages, mean and standard deviation, while statistical significance of 0.05 level was determined through t-test

and Analysis of Covariance (ANCOVA). The findings showed a significant effect of ILLMuPac on students' motivation to learn Igbo and the cultural heritage of the Igbo people. Based on the findings, the study recommends among other things that the Igbo language teachers should be advised to vary their methods, techniques and ways of teaching according to their students' needs, capabilities and interests.

1. Introduction

One of the most distinctive characteristics which set humans apart from other creatures is the highly evolved mode of communication termed language (Badiyani, 2008). Language serves as a tool for conveying functional meaning through interaction and communication. Language is the carrier of culture and culture is the content of language. Language is even regarded as the product of culture, as Muir (2007) asserted that language is just one of the various cultural products. Each generation modifies changes and adapts its language so that at any point in time, the language remains a cultural institution developed by a community, for the use or service of that community (Puloka, 2000).

Adopting a new identity can be expressed as the gradual loss of unique cultural traits and the imitation of a foreign culture (Dastigoshadeth and Jalilzadeh, 2011; Grimes, 2008; Brezinger, 2001). The number of Nigerian languages is put at about five hundred and twenty - five (525) (Crozier & Blench, 1992; Ikegbunam, 2009). Hausa, Igbo and Yoruba are considered Nigeria's major languages due to their having speakers in excess of 18 million each, while the rest are referred to as minority languages. In addition, the country has English as its official

language, and there are many ways and avenues for the children to learn English language (Oyelami, 2008).^

Again, the situation remains that the English language which is the official language, is already entrenched in all the formal domains (education, government, commerce, media, etc). The Igbos of southeast Nigeria speak the Igbo language which is one of the speech communities in the Kwa sub- family of the Niger- Congo family (Greenberg, 1949 cited in Nwadike, 2008). The Igbo language is estimated as having a population of between 18 and 27 million native speakers (Lewis, 2009). Not all of these speakers however reside in the Igbo home areas. Ohiri – Aniche (2008) found that most of the Igbo parents interviewed in Igbo land and outside Igbo land conversed with their children mostly in English or a mixture of English and Igbo language. The result is that an increasing number of children do not understand or speak Igbo, or do so with difficulty. This is particularly with children raised in families outside Igbo land, including urban cities and South Western states of Nigeria.

The above situations bring about the erosion of the functional roles of Nigerian languages (including Igbo language) in the informal domain (especially in the home) which has important and remarkable consequences both for the long-term survival of indigenous languages and for the motivation of students in the classroom learning of these languages (Ohiri-Aniche, 2002; Jubril, 2003). In recent years, the Igbos travel far and beyond Nigeria and can be seen in the diasporas. Many of them can be seen in African countries and even far beyond in United States of America, Brazil, Rome, Spain, Norway, and so no and wherever they are , they maintain close contact bonded and sustained by a strong tribal unity. They exhibit their language and cultures by speaking their language, the type of food they take, going back to Igbo land for

marriage, giving their children Igbo names and so on. The situation of promoting the learning of Igbo and its cultural heritage would also provide the younger generation opportunities of learning the language in schools, and would offer them employment as well.

The evolution of language teaching has traditionally been influenced by the advancement of new language teaching pedagogies and more recently, by technological changes of CALL which explores the potential of technology applications to language teaching (Hardisty & Wineatt cited in Basoz & Cubukcu, 2014).Computer-assisted language learning (CALL) is a form of computer-based learning which carries two important features of bidirectional learning and individualized learning. Computer-assisted language learning involves applying the principles of computer-assisted learning to language learning context. It is the use of computer programmes to enhance learning (Chapelle (2003). Computer-Assisted Language Learning (CALL) is when the computer is being used as an instructional tool to improve learning by helping students acquire a better understanding of the learning content (Huizhong, 1985).

Informed by the reviews on the accrued benefits of CALL in language learning, this study, therefore, looked into the use of computer assisted language learning on the motivation of junior secondary school students in Igbo in the direction of improving their motivation to learn the language and cultural heritage of the Igbo people of the southeastern Nigeria. Motivation is a key component in learning, not only that it helps learning, it is also very essential for learning. This idea of motivation as described here is broadly conceived to include an understanding of ways in which the knowledge can be used. Unless we know "the reasons why", we may not be very involved in using the knowledge that may be instilled in us even by the most severe and direct teaching.

Proper motivation leads to good achievement and high productivity, and so the impact of motivation on students' achievement cannot be over emphasized for effective learning (Tella, 2007)**.** Bank and Finlapson (1980 cited in Tella, 2007) found that successful students were found to be significantly higher motivated for achievement than unsuccessful students. Moreover, (Broussard and Garrison, 2004; Skaalvik and Skaalvik, 2006) revealed significant relationship between achievement and motivation.

Language and culture are strongly linked to each other; hence an important aspect of learning a language is learning its culture. However, some people still ignore the importance of teaching culture as a part of learning a language. There is therefore the need to look into teaching culture in the language learning classroom. It was reported that a great slack exists in the teaching and learning of the Igbo language and culture at the junior secondary school level of education in Lagos State (Okodo, 2012; Umeje, 2012; and Ohiri-Aniche,2003).This scenario results in the lack of motivation to learn the language and its cultural heritage. If this scenario continues unchecked, the Igbo language and its cultural heritage may gradually be moving towards extinction, coupled with the fact that urbanization and migration, which are very inevitable in the present era, have also put pressure on many Igbo families to bring up their children to speak English or the dominant language rather than Igbo. The trend has implications not only for the young generation of Igbo speakers, but also to the continuity of the Igbo language and invariably, its culture.

2. Theoretical Framework

This study was anchored on the theory of constructivism propounded by Jerome Brunner (1990). It focused on the actual

classroom practices and use of ICTs that involves the teacher as the facilitator and the learners as the main centre of interest. According to Brunner, invention or creativity is the process of coming up with new knowledge on the basis of learners experience. This theory perceives knowledge as something that emanates from the learner.

Constructivism theory is applicable to this study because students are encouraged to solve problems on their own instead of the teacher providing them with the answers. Students are also encouraged to understand difficult concepts by using demonstrations and pictures as they interact with the CALL intervention package. Activating students' prior knowledge of computer and other ICT tools which they acquired from computer education instruction classes and purposefully connecting subject /curriculum contents in the Igbo language are extremely important within this framework. In addition, modules and activities are organized so that the students continually build upon what they have already learned; and when interest is associated with learning, the information will be remembered and applied in real life experiences.

3. Purpose of the Study

The main purpose of this study is to investigate the use of computer assisted language learning to enhance the motivation to learn the Igbo language and culture among junior secondary students in Igbo in Lagos State, Nigeria as a way of tackling lack of interest and motivation for the language and its invaluable cultural heritage. Specifically, the study:

1) Utilizes a developed computer assisted language learning (CALL) intervention package to enhance instructional modes of Igbo language at JSS level.
2) Determines the effect of the CALL intervention package on experimental subjects' motivation to learn the Igbo language and culture.
3) Determines the interaction effect of the CALL intervention package and the students' language of the home on the students' motivation to learn the Igbo language and culture.

4. Research Questions

The following research questions were answered by the study

- How the developed computer assisted language learning (CALL) intervention package was utilized to enhance instructional modes of the Igbo language and culture at JSS level?
- What was the effect of the CALL intervention package on experimental subjects' motivation to learn the Igbo language and culture?
- What interaction effect has the CALL intervention package and the students' language of the home on the students' motivation to learn the Igbo language and culture?

5. Research Hypothesis

The following research hypothesis also guided the study.

- There is no significant differential effect of the CALL intervention package on the experimental subjects' motivation to learn the Igbo language and culture**.**

- There is no significant interaction effect of the CALL intervention package and students' language of the home on achievements of students in Igbo.

6.0. Methodology

6.1. Population for the Study and Sampling Technique

The population for the study was the entire JSS II students in the government-owned secondary schools in Lagos State, Nigeria. This population comprised all the students enrolled for 2011/2012 academic session who were studying the Igbo language and culture. The sample for the study comprised all the JSS II students in the Lagos Education District V. This was made up of forty five (45) junior secondary school students from intact classrooms, both male and female studying the Igbo language and culture. Ten Igbo language teachers were also selected for the study.

All the participants were involved in the survey. Purposive sampling was used for this study since the primary concern is to acquire in-depth information from those who are in a position to give it. (Cohen, Manion & Morrison, 2011).Thus, purposive sampling technique was used to select two schools from Lagos Education District V for the study. The rationale for this technique was based on the fact that not all government –owned secondary schools offer the Igbo language as well as computer education at junior secondary school level. Twenty two (22) students from two intact classrooms were assigned to the control group while another twenty three (23) students from another two intact classrooms were assigned to the experimental group, bringing the total sample size to forty nine (45) students.

In selecting the schools and the students for the study, 3 criteria were considered. The school must be Lagos State

government-owned schools so that the topics taught will be the same since both for the control and experimental groups. The topics were selected from the stipulated unified scheme of work. However, those schools must have basic ICT facilities such as computer laboratories, computer instruction and Igbo language teachers, functional computers and standby generators, the school must have taught Igbo language and computer education as their school subjects in the last three years, the school must have students offering Igbo language and computer instruction respectively as their school subjects. These rationales were taken because the topics of the multimedia package were chosen from the unified scheme of work used in all the Lagos State government-owned secondary schools.

6.2. Instruments for the Study

To achieve the research objectives, two categories of instruments are used. They are *Response and Stimulus instruments.* They include:

Students' Motivation to learn the Igbo Language and Culture Questionnaire**:** This was developed to elicit information from both control and experimental group on the students' motivation to learn the Igbo language and culture within the traditional instructional strategies;

Questionnaires structured for the experimental group: This was developed for students' assessment of ILLMuPac on the motivation to learn the Igbo language and culture after the intervention period of six weeks.

The Stimulus Instrument comprises the Igbo Language Learning Multimedia Package (ILLMuPac) which is the treatment administered to the experimental group. It is made up of lessons developed from Igbo topics selected from Lagos State Unified

Schemes of Work on Igbo language and culture for Junior Secondary Schools (Lagos State Ministry of Education, 2010). This was developed as software for teaching and learning of Igbo. An interactive model of computer assisted language learning was developed in order to present in graphic terms the various elements that come into play in teaching and learning of the Igbo language using the computer.

ASSURE Model of Instructional Design Intervention (Henich, Molenda & Russel, 1993) was used as the baseline model for ILLMuPac. This model focused specifically on planning and conducting instruction that incorporates media in educational process. Its main perspective was how to integrate any kind of media into instruction in a proper and effective way in terms of intended learning outcomes. This framework was chosen because it has become a framework frequently used in publications and discussions on introducing new technology in teaching and learning processes. (Faryardi, 2012; Al Musawi, 2011; KENPRO, 2010; Shelly, Cashman, Gunter and Gunter 2006; Heinich & Smaldino, 2002) regarded it as the most appropriate for implementing instruction with the aid of technology media. It is a classroom – oriented model that addresses the phases for a planning in the classroom use of instructional media.

When developing the software instructional package for the study, the researcher took into consideration the students' interests and needs, the instructional objectives as well as the interface design.

- The design was also carried out taking the following students' needs and attributes into considerations:
- Entry behaviour: Description of what the learner must know before entering into the learning programme, that is

the base level of knowledge, skills and attitudes before the use of the modules.

- Learning objectives: This entails ordered sequences of what a learner should be able to do after going through the programme. They were taken from the stipulated objectives in the Unified Schemes of Work for JSS II.
- Learning steps: Here, the descriptions of how to perform the tasks/activities were explained.
- Performance test: This is the description of how well the tasks/ activities must be performed.
- Interface Design: The following important steps to get the desired result were also taken into consideration: –
- Windows/buttons/colours/font type; the interface to be user-friendly; the sequence of the screen to be logical; allowing users to browse without getting lost and the users to always know where they are, the programme has to be easy to use: and the feedback mechanism to ascertain the level of knowledge acquired.

To ensure the relevance and adequacy of the learning goals and content coverage of the Igbo Language Learning Multimedia Package (ILLMUPac), a content analysis of the curriculum for JSS II Igbo language programme was undertaken. The test content was validated by one of my supervisors, a professor of the Igbo language and culture. The professor was asked to validate the content of the test with regard to test instructions, the relevance of questions to content, its suitability to the research goals and objectives, the number and arrangement of questions, and the suitability of the time allocated to the test.

The correlation of the two sets of score for each instrument was tested using Pearson Product Moment Correlation Coefficient.

The following values were realized for co-efficient of reliability and was considered high enough to attest the instruments' reliability.

Table 1.0: Table of Reliability of the Instruments

Variable	No. of Items	Test Position	X Mean	SD Std.Dev.	rt Reliability
Students' Motivation to learn Igbo Language and Cultural Questionnaire	22	1st 2nd	2.16 2.31	.581 .384	0.59
Academic Achievements Schedule	40	1st 2nd	11.73 12.92	2.86 3.03	0.71

It could be seen from the Table 1.0 that reliability index yield ranged between 0.59 and 0.79. These values were high enough and consequently, the instruments were considered reliable and hence appropriate for the study as they were found to be stable over time.

6.3. Data Collection Procedures and Administration of Instruments

A pre-test using the Igbo Language Achievement Test (ILAT) was administered to all the 45 students in the two groups (experimental and control) to determine their entry behaviour. For this purpose, the researcher adapted Igbo Language Achievement Test (ILAT)

which was originally constructed and validated as ILAT (Okudo, 2016). ILAT is a 40-item multiple choice instruments based on the elements and principles of design and was used to measure students' cognitive ability.

The Igbo class teachers were trained by the researcher, and discussions held for two weeks before the exercise as regards the intervention and organization of the class sessions.

The Igbo classroom teacher taught the control group on the selected five topics using traditional teacher-centered method while the experimental group was taught using the combination of both traditional lecture method and ILLMuPac intervention strategy. They were also taught on the same five different topics in the Igbo language and culture which comprises Parts of Human Body, Greetings, Numbering systems, Igbo Dressings, Family and its Members.

After due intervention treatment, the post – test achievement test was administered to the two groups to find out the measurable distinction in their learning as a result of ILLMuPac.

Finally, questionnaires were distributed to the experimental group to measure and evaluate the level of satisfaction ILLMuPac had on their academic achievement, motivation for learning the Igbo language and culture after being exposed to the computer assisted language learning package.

6.4. Presentation of Data and Results

The Statistical Package for Social Sciences 15.0 version (SPSS) was adopted for the analyses of the data. Data collected from the survey were analyzed using descriptive statistics like percentages resulting from frequency counts to calculate results for the research questions one and two.

To test this hypothesis, the mean(x) scores and standard deviation of subjects for pre-test and post-test scores were first computed. Then, the independent t-test statistical technique was used to determine whether or not there was a significant differential effect of CALL intervention package on the students' motivation to learn the Igbo language and culture for both groups.

Figure 2 shows pre and post tests Igbo motivation test scores of students in the experimental and control group.
The result of the analysis is presented in table 2 below.

Table 2: Pre and post motivation scores of the experimental and control groups

Group	**N**	**Pretest-motivation Score**		**Posttest-Motivation Score**		**Mean Differ**	**t-test**	**p-value**
		Mean	SD	Mean	SD			
Experimental group	22	1.601	.2735	2.400	.50547	0.803	6.66	0.00
Control group	23	2.701	.3334	2.910	.43097	0.209		
Total	45	10.725	4.5537	2.631	7.727	1.012		

t-value Significant at < .05; df=

Table 2 shows that experimental group appeared to have made significant improvements over the control group. The experimental group has a higher mean difference score of 0.803 as against control group with a mean difference of 0.209. To determine if the difference in the post-test mean scores of the experimental and control groups was statistically significant, t-test statistical tool

was used and the result showed that the difference between the mean scores of the experimental and control groups was statistically significant at (t= 6.66, >.05). Thus, the null hypothesis which stated that there is no significant differential effect of the intervention package on motivation scores of the Igbo students was rejected while the alternative was retained. The result showed that learning with computer simulation is more effective than the traditional Igbo language teacher – centred instructional method in enhancing students' motivation to learn Igbo language and culture.

6.4.1. Research Questions 3: What interaction effect has the CALL intervention package and the students' language of the home on the students' achievement in Igbo?

H_{O2} : There is no significant interaction effect of the CALL intervention package and students' language of the home on the motivation to learn the Igbo language and culture.

To test this hypothesis, the mean (x) scores and standard deviation of the students' language of the home and varying test scores of the students were calculated. A 2 x 3 Analysis of Covariance (ANCOVA) of the post test scores between groups and students' language of the home were used to verify whether or not there is a significant interaction effect of the treatment on the groups. The results of the analysis are presented on table 3.

Table 3: Summary of ANCOVA on the effect of CALL intervention package and students' language of the home on the motivation to learn the Igbo Language and Cultural Heritage

Source	Type III Sum of Squares	Df	Mean Square	F	Sig.
Corrected Model	1230.060(a)	42	29.287	1.657	.039
Intercept	5038.670	1	5038.670	285.128	.000
Intervention	999.055	27	37.002	2.094	.010
Spoken language	4.142	1	4.142	.234	.630
Intervention * Spoken language	171.839	14	12.274	.695	.770
Error	971.940	55	17.672		
Total	13754.000	98			
Corrected Total	2202.000	97			

a. R Squared = .559 (Adjusted R Squared = .222)

The results in table 3 above show that there is a significant effect of the CALL intervention package and achievement of students in the Igbo language and culture. This is because the calculated F-value of 2.094 in respect of the CALL intervention as main effect is shown to be significant at p> .05. This indicates that exposing students to CALL intervention integrated teaching and learning improves their achievement in the learning of Igbo language and culture. However, to determine the interaction effect of the CALL intervention package and language of the home on the motivation to learn the Igbo language and its cultural heritage , the result from the table shows no significant interaction effect, since F-value = .695 is not significant at p>0.05 given (df=14, 98) degrees of freedom. Thus, the null hypothesis that states there is no significant

interaction effect of intervention package and home language on the motivation of students to learn the Igbo language and culture was retained.

7. Discussion of Findings

Computer assisted language learning intervention package and students' motivation to learn Igbo in experimental group

According to Gardener (2001), motivation to learn a language has three elements: desire to learn, effort and affect. In the course of the study, it was found that the students displayed a strong desire to achieve the goals by learning the Igbo language and its cultural heritage; they also expended all possible effort persistently and consistently to learn the Igbo language; and they showed interest in learning the Igbo language and culture. They enjoyed the activities in the ILLMuPac and were motivated which led to successful accomplishment of goals.

The finding showed that there is a significant effect of the ILLMuPac on motivation scores of students to learn the Igbo language and culture. This would also help to facilitate the teaching and learning processes thereby motivating students to learn Nigerian languages (Igbo language inclusive). Thus, learning the Igbo language and culture with ILLMuPac is more effective than the traditional Igbo language teacher – centred method in stimulating students' motivation and interests in Igbo language and cultural heritage. This position is buttressed by the findings of Reeves (1998) cited in Okudo (2016) who noted that multi-media learning stimulates more than one sense at a time and in doing this, it aroused and upheld attention. Kessler (2006) also noted that CALL also enhances interactive learning. It is believed that

interactivity encourages discovery for learners to go at their own pace rather than teacher directed learning.

7.1 Implications for Language Teaching and Learning

According to the results of the study, the following implications for teaching and learning are presented:

Before introducing CALL into the Igbo language and culture classroom, the Igbo learners should be provided with necessary required skills to use the computers properly and comfortably. This will ensure that learners will be freed from computer anxiety and negative attitudes towards computers.

The treatment package ILLMuPac developed purposely as an intervention strategy for this study has been validated and found to be effective. The interactive multimedia package could be used to teach secondary school students who are learning the Igbo language and culture.

CALL can be of great help in teaching and learning of the Igbo language and culture especially when repetitive practice is needed. Limitation of the study to Upper Basic II schools located within Lagos State may make the findings not generalizable.

8. Recommendations based on the Findings

In view of the fact that Computer Assisted Language Learning is relatively new to students especially in teaching and learning of the Igbo language and culture, it is recommended that

- The developed and successfully tested CALL courseware package ie Igbo Language Learning Multimedia Package (ILLMuPac) is recommended for teaching and learning of Igbo language and culture in the junior secondary schools.

- The teaching of Igbo language and culture should be geared towards the acquisition of appropriate knowledge and skills that are related to the students' immediate environment.
- The Igbo language teachers are also advised to vary their methods, techniques and ways of teaching according to their students' needs, capabilities and interests to enhance the students' motivation and interests.

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