



An Open Access Journal available online

## **Adoption of Computer Assisted Language Learning Software among Nigerian Secondary School Students**

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**Abstract:** Learning a language can be a daunting task especially if a learner has acquired his/her first language. In second or foreign language learning (L2 or FL), an effective learning strategy can contribute very much to one's success. Hence, computer assisted language learning (CALL) materials could be used in teaching to facilitate the language learning process. CALL encompasses broad range of information and communication technology applications and approaches. CALL materials are useful for two reasons; they are focused on learning rather than instruction or teaching and student-centered which enables a learner to learn at his/her pace. The four skills covered by CALL are listening, speaking, reading and writing. There are evidences in the literature that CALL has performed well in promoting three skills; listening, speaking and reading while substantial gains have not been made in writing skill. CALL, like other educational software has the potential to facilitate, accelerate, motivate and deepen skills in language learning. This study therefore examined the level of adoption of CALL among secondary school students in Nigeria. The study covered two geopolitical zones (North-central and South-west) in Nigeria. Four states were randomly selected; two from each zone. The states are Kogi and Kwara from North-central, and Lagos and Ogun from South west. Eight secondary schools from each of the state participated in this study. Twenty students were selected from each of the thirty-two schools (371 girls (58%), 269 boys

(42%). The ages of the participants range from 12-18 years with mean age of 14.63 years and standard deviation of 2.08. All the participants had English language as one of their subjects while 23% had French language in addition. CALL Adoption Questionnaire (CAQ) was designed and used to measure adoption. Four research questions were raised and answered. The findings revealed that only 147 students representing 23% adopt CALL applications in their language learning activities. The factors that promote the adoption of CALL include; educational qualification of fathers, type of school, peer influence and class of students. The study concluded that the adoption of CALL is low among secondary school students and recommended that parents, government and proprietors of private schools should procure and enforce the use of CALL in our secondary schools to reduce abysmal failure rate in English and French languages.

## Introduction

Learning a language can be a daunting task especially if a learner has acquired his/her first language. In second or foreign language learning (L2 or FL), an effective learning strategy can contribute very much to one's success. Hence, computer assisted language learning (CALL) materials could be used in teaching to facilitate the language learning process. CALL encompasses broad range of information and communication technology applications and approaches. CALL materials are useful for two reasons: they are focused on learning rather than instruction or teaching and student-centered which enables a learner to learn at his/her pace. The four skills covered by CALL are listening, speaking, reading and writing. There are evidences in the literature that CALL has performed well in promoting three skills; listening, speaking and reading while substantial gains have not been made in writing skill. CALL, like other educational software that is computer software has the potential to facilitate,

accelerate, motivate and deepen skills in language learning. This study therefore examined the adoption of computer assisted language learning software among Nigerian secondary schools' students learning English or French as either second or foreign language.

## Background to the Study

English and French are learnt in Nigeria as second and foreign languages, a situation where students who neither speak English nor French as their mother tongue are expected to gain knowledge of either one or the two languages as the case may be. The number of students learning English in Nigeria is impressive for obvious reasons. Students must pass English Language in the secondary school before they can be offered admission to study a course in any institution of higher learning. English is the language of instruction in higher institutions in Nigeria, this implies that English is the only major language of documentation in the country. English occupies an influential role in the formation of the national expectations and integration of the Nigerian nation through its "official language" status. English

language in Nigeria is best described with the words of McCrum (1986: 56) who says, “The English language surrounds us like a sea and, like the waters of the deep, it is full of mysteries”

However, the importance of learning English is not limited to its usefulness in Nigeria alone. Russell (2007) commented that opportunities are available for people who know foreign languages because of ever increasing international exchanges and interactions. Learning second or foreign language provides a learner with knowledge, skills and attitudes that are necessary in the workplace either locally, nationally or internationally. The language of business is now diverse. Advent of globalization necessitates doing business with people who speak all sorts of different languages. Nunan *et al.* (1987) observed that language learning has become increasingly important as globalization expands. As a result employers are constantly looking for people who are able to speak additional languages. Having requirements, qualification, personalities or job skills are no more sufficient to secure a place in the labour market. The ability to speak more than one language now improves one’s employability. This depends in large part on what languages employment seeker is able to speak. Researchers have indicated that to be competitive in global markets requires one to be able to speak English (Phillipson, 2003, Short et al., 2001).

Apart from English language, there is an increase in demand for French translators for agencies that offer services to law enforcement,

hospitals, legal services, immigration services, airline companies, and schools. In addition, young Nigerians can create more opportunities for themselves in areas of education and employment by acquiring French language because Nigeria is surrounded by many French speaking countries in the West Africa sub-region. The European Union, the second largest trading bloc in the world, recognizes French as an official language. French is both a working language and an official language of the United Nations, OAU, UNESCO, NATO, the International Olympic Committee, the International Red Cross and international courts.

However, the low level of language competence demonstrated by the students in and out of school has become a point of worry to all stakeholders in the educational sector. The performance of students in English language especially in senior school certificate examinations is abysmally poor. Educators are daily faced with challenges of pulling proficiency levels up against a backdrop where the language is almost non-existent other than the few periods of English per week where it is taught more as an academic subject than as a language. Therefore, teaching and learning the language comes with an almost innate set of obstacles. The falling standard of English remains till this day, an extremely heated topic among politicians and the public.

One solution is engaging students to take responsibilities for their language learning activities. Zhang *et al.* (2004) see technology-assisted learning as a good substitute for some conventional, face-to-face, classroom-

based learning while Masie (2002) and Frederickson *et al.* (2004) suggest hybrid of face-to-face, classroom-based learning and technology-assisted learning for better outcome in learning.

There are various benefits ascribed to technology-assisted learning. MacFarlane (1992) identified learner's ability to have control over time, location, pace and repetition. Technologies provide rich and flexible media for representing what students know and what they are learning. A great deal of research on computers and other technologies has shown that these innovations can effectively put students in charge of their language learning activities. Computer Technology affords students learning a foreign or second language the opportunity to structure his or her learning activities (Lee, 2000). It is widely accepted that young learners are at home with computer. They use the computer to communicate, play games and in helping with their homework. Cobb and Stevens (1996) observe that computer technology stimulates young second or foreign language learners in all four skills of listening, speaking, writing, reading and also critical thinking. Some software has facilities for repetitive language drills and practices that provide immediate feedback and allow students to proceed at their own pace. Stenson *et al.*, (1992) observed that students tend to like using computers, even when they may not make much progress in their language learning pursuit while Bruce (1993) stated that computer places the power of learning more in the hands of the learner.

The guiding principles behind development of most CALL are to design user friendly and student-centered materials that allow learners to work on their own. Such materials may be structured or unstructured, but they normally embody two important features: interactive learning and individualized learning. There is a sizeable list of a high-end package designed to meet the needs of both foreign and second language learners. These include CALI's *Ellis, Dynamic English*, Berlitz's *English Discoveries* (DynEd's), Jostens' *English Language Development* and *STEPS*, and Hartley's *Project Star*. Apart from having distinct elements for practice, some language assisted software have in-built curriculum.

### **Theoretical Review**

The technology acceptance model (TAM) explains the factors that influence students' uptake of CALL software in their second or foreign language learning activities. Davis (1989) developed the TAM to address the issue of how users come to accept and use a technology. According to this theoretical model, there are two variables influencing adoptions: perceived ease of use and usefulness (Venkatesh *et. al*, 2003). The four research questions raised and answered emanated from our efforts to explain the causal linkages between perceived usefulness and perceived ease of use and students' intention and actual CALL software adoption behavior among second and foreign language learners (Teo, 2010).

### **Statement of Problem**

The persistent poor performance of Nigerian secondary school students in English and French languages especially in public examinations such

as the Senior School Certificate Examinations (SSCE) and National Examination Council (NECO) is a great concern to all stakeholders. Parents, guardians and other stakeholders in the education industry have variously commented on the performances of secondary school students particularly in English Language (Adepoju, 2002). The impact of failure on the self-esteem of the students is damaging and the consequences can influence an entire lifetime. It has been suggested that the use of computer technology (mobile phones, games and social media) by students can be encouraged as a means to helping enhance their English learning standards. It will be worthwhile to assess the level of adoption of CALL. Even though some language teachers believe that CALL has been helpful, others believe that this software is limited in certain areas.

### **Objectives**

The following objectives were raised to guide the conduct of this study:

1. To determine the current level of awareness of CALL among secondary school students.
2. To investigate the level of adoption of CALL in language learning activities of secondary school students.
3. To identify the factors that promote the adoption of CALL in language learning activities of secondary school students

4. To examine the level of perceived effectiveness of CALL in language learning activities of secondary school students

### **Methodology**

This study adopted a descriptive survey design. Descriptive research involves gathering data that describe events and then organizes, tabulates, depicts, and describes the data collection (Glass and Hopkins, 1984). The study covered two geopolitical zones (North-central and South-west) in Nigeria. Four states were randomly selected; two from each zone. The states are Kogi and Kwara from North-central, Lagos and Ogun from South west. Eight secondary schools from each of the state participated in this study. Twenty students were selected from each of the thirty-two schools comprises 371 girls (58%) and 269 boys (42%). The ages of the participants ranges from 12-18years with mean age of 14.63 years and standard deviation of 2.08 years. All the participants had English language as one of their subjects while 23% had French language in addition. CALL Adoption Questionnaire (CAQ) was designed and used to measure adoption. Four research questions were raised and answered.

### **Results**

Research Question 1: What is the level of awareness of CALL among secondary school students?

**Table 1 Level of awareness of CALL among secondary school students**

Variation	N	%
Extremely aware	33	5.2
Very aware	44	6.9
Moderately aware	48	7.5
Slightly aware	102	15.9
Not at all aware	413	64.5
Total	640	100

The findings revealed that majority of the participants were not aware of CALL (64.5%) while about 16% were slightly aware. The percentage of participants that reported considerable awareness is about 20%.

Research Question 2: What is the level of adoption of CALL among secondary school students in their language learning activities?

**Table 2: Level of adoption of CALL**

Variation	N	%
Behaviouristic CALL	77	12
Communicative CALL	51	8
Integrative CALL	19	3
Never Used	493	77
Total	640	100

The adoption of CALL is very low according to the findings as presented in table 2. The majority of the participants were not using CALL (77%) Only 12% of participants reported adoption of Behavioristic

CALL which was the most adopted software.

Research Question 3: What are the factors that promote the adoption of CALL among secondary school students in their language learning activities?

**Table3: Factors that promote the adoption of CALL**

Variation	N	%
Peer Influence	224	98.7
Type of School	222	97.8
Class of Students	218	96
Educational Qualification of Fathers	214	94.3
Parent's Support	204	89.9
Teachers' Support	126	55.5
Computer Self-Efficacy	119	52.4
Accessibility	104	45.8
Computer Competence	102	44.9

The factors that promote the adoption of CALL include; peer influence (98.7 %), type of school (97.8%), class of

student (96%) educational qualification of fathers (94.3%), parent's support (89%), teacher's

support (55.5%) and computer self-efficacy (52.4%). Others include; accessibility (45.8%) and computer competence (44.9%).

Research Question 4: What is the level of perceived effectiveness of CALL in language learning activities of secondary school students?

**Table 4: Level of Perceived Effectiveness of CALL**

Variation	N	%
Highly Effective	103	70
Effective	42	29
Not Effective	2	1
Total	147	100

The findings revealed that majority of the participants perceived CALL as highly effective in language learning activities (70%) and effective (29%) while only 1% was of the opinion that CALL was not effective in language learning activities.

### Discussion and Recommendations

Low awareness of CALL was found among secondary school students in Nigeria. The result of the findings further established the notion of other scholars that many language teachers feel unskilled in computer technology, thereby hindering their ability to present language programmes to students (Egbert, Paulus, & Nakamichi, 2002, p. 109). The level of adoption is expectedly low as found in this study. The factors identified in the literature for low or non-adoption includes, but not limited to, technology-related anxiety, lack of resources, inflexible guidelines, poor technical support, age, and the rapidity at which technology changes (Egbert et al., 2002, p. 112). The poor influence of teachers was evident in the factors that promote the adoption of CALL because only 55.5% of students cited the teacher's support. Although syllabus and policy may create norms of teaching practice, teachers can choose, within these

limits, the approach that works for them and what to encourage students to adopt in their language learning activities. This autonomy provides teachers with choices to adopt, adapt or reject an instructional reform such as CALL. Therefore, the decision regarding whether and how to use CALL by students is to a large extent dependent on teachers. If we are to achieve fundamental, or second-order, changes in attitude of student to adoption of CALL we need to examine teachers themselves and the beliefs they hold about teaching, learning and CALL.

These findings indicate that there are three basic needs. One is a need for integration of sufficient hardware and software for language learning in schools. Computers and computer-related technologies should be a part of classroom teaching activities in Nigeria. This kind of integration will allow an opportunity for teacher and student to become familiar with computers and apply computer technology in both classroom and personal teaching and learning experiences.

The second is a need for in-service training in computer technology. Particularly because modern society and information change rapidly, pre-

service education is no longer enough for teachers to keep abreast with current trends and maintain a high quality of instruction. The third need relates to training students to become effective users of CALL. Parents, government and proprietors of private

schools should also procure and enforce the use of CALL in our secondary schools to reduce abysmal failure rate in English and French languages.

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