**International Academy of Science,
Engineering and Technology**
Connecting Researchers; Nurturing Innovations
**IASET**

# EFFECT OF ELECTRONIC ENGLISH PRONOUNCING DICTIONARY INSTRUCTIONAL RESOURCE ON SENIOR SECONDARY SCHOOL STUDENTS ACHIEVEMENT IN ORAL ENGLISH IN ENUGU STATE NIGERIA

## AKABOGU JOSEPHINE UZOAMAKA & ANSTASIA DIKE E

Department of Arts Education, University of Nigeria, Nsukka

## ABSTRACT

This study investigated the effect electronic English pronouncing Dictionary (e-EPD) instructional resource on has senior secondary school students achievement in oral English. The study employed the non-randomized pre-test post-test control group quasi experimental design. One research question and one null hypothesis were formulated to guide the study. The area of the study was Enugu East local government area in Enugu State Nigeria. The sample for the study consisted of 130 senior secondary schools of all the four co-educational class two (SS2) students of all the four co-educational schools in Enugu East LGA. One intact class was randomly sampled from each of the schools and assigned to either the experimental or control group. Oral English Achievement Test (OEAT) was used for data collection. The instrument was adapted by the researcher from West African examination council past questions and validated by five experts from the University of Nigeria Nsukka (UNN). The achievement test was trial tested using twenty (20) students from the senior secondary two level of study, before administering it on the sample for the study. The coefficients obtained was 0.87 showing that the instrument was reliable. Using the instrument a pre-test was administered to the groups before the experiment which lasted for four weeks. A Post-test was administered after the experiment. The scores of the students from, the test was used as the data for the study. The research questions was answered using mean and standard deviation while the analysis of covariance (ANCOVA) was used to test the null hypothesis at P<0.05. The result from the data, analysis showed that students taught oral English using e-EPD instructional resource. Performed better them achieved higher than that taught using the conventional method these findings present crucial implications for English language teachers, students and stake holders in English language. Recommendations were made based on these findings one of which is that the English language teacher in Nigeria should be encouraged to adopt electronic English pronouncing Dictionary instructional resource as an alternative to the conventional text resources for smoother teaching and learning of oral English.

**KEYWORDS:** Oral English, Dictionary Resource, Achievement, Test

## INTRODUCTION

Oral English is a major theme of English language in the Nigerian secondary school curriculum. It is that aspect of the English language which deals with the pronunciation of English words. Pronunciation is the way a word is spoken. It is the articulation or graphic representation of a sound. The major areas of Oral English include the articulation of individual sounds (vowels and consonants) and word stress; and, secondarily, sentence stress, rhythm and intonation. The curriculum of NERDC (2007, p. vii) states that the objective of Oral English is "to ensure that students speak the language intelligibly and communicate effectively, face to face, in the English language". Compulsory evaluation in Oral English found its way into the WAEC SSCE only in 1988 (Jowitt, 1996) when it became the "Paper 3" of the English

language SSCE which tested the skills of listening and speaking. From the 90s to date, internal and external examination bodies have waived off this practical 'listening and speaking' aspect of students' evaluation in Oral English, making it a written instead of oral examination. This, according to NERDC (2007), has contributed to students' poor performance in t he English language and in Oral English in particular.

Learner's pronunciation for effective communication with native and non-native speakers of English. The task of the Oral English teacher in Nigeria is therefore to guide students towards the right pronunciation of words in order to understand other users of English and be understood by them.

Information and communications technology (ICT) approach incorporates Computer Assisted Pronunciation (CAP). Computer Assisted Pronunciation is a modern approach to the teaching and learning of pronunciation where the computer is used as a resource for the presentation, reinforcement, and evaluation of the material to be learnt. The emphasis of CAP is on modern student-centred materials that make learning active and independent (Talebi & Teimoury 2013). Such modern materials include: audio CDs, videoclips, streaming speech, plato and toni, and, tour de force. A CAP approach tends to lend greater credence to the use of electronic dictionary (e-dictionary) over other materials.

An electronic dictionary is a dictionary whose data exists in digital form and can be accessed through different media. Electronic dictionaries come as dedicated handheld devices, as applications on smart-phones, tablet computers or computer software, as free or purchased online products, as a function built into an E-reader or as CD-ROMs and DVD- ROMs classically packaged with a printed dictionary for installation on computer. Most types of dictionaries are available in electronic form including general-purpose bilingual dictionaries, historical dictionaries, monolingual learner's dictionaries such as *Oxford English Dictionary, Longman Dictionary of Contemporary English* and the *Macmillan English Dictionary,* and specialized dictionaries (Nesi, 2009; De Schryver, 2003). For the purpose of this study, the electronic-*English Pronouncing Dictionary* is explored.

*English Pronouncing Dictionary* (EPD) is a major pronouncing dictionary designed for foreign learners of English. It is an established classic work of reference which includes pronunciation information pertinent to the needs of current users, both native speakers of English seeking an authoritative guide, and EFL/ESL users the world over (Roach, Hartman & Setter, 2006). Szynalski (2012) and Sobkowiak (2005) assert that the EPD is the first English pronouncing dictionary to exist on CD-ROM. According to the lexicographers Roach, Hartman and Setter, the EPD was launched into the computer age with the publication of its 15th edition in 1997 when all its entries got converted into a computer database, and the creation of the CD-ROM version of the EPD became one of its major developments. The electronic *English Pronouncing Dictionary* (e-EPD) is therefore a compact disc version of the paperback EPD which displays all the data (sounds and words) of the paper version and more on the computer. It is an impressive audio-visual instructional material that readily offers the pronunciation of a sound/word with a click on that sound/word. It contains first rate top-quality audio recording of all headwords, distinct and accurate display of International Phonetic Alphabet (IPA) transcription for both British and American accents, and further functional electronic provisions of Voice Recording, Exercises, QUICK find and Sound Search. The e-EPD comprises phonetic transcriptions of English words that cover both British and American pronunciation, together with infections and proper names. The CD-ROM offers additional features way beyond the book version. It is vastly available since it is sold with its paper version.

The application of the EPD CD-ROM evokes an active classroom where the learner is fully involved. The teacher

is only a facilitator and guide. With the EPD CD-ROM installed in the computers and the objectives of the lesson set, the teacher introduces the lesson. With the class he arrives at an inventory of sounds/words whose pronunciation will be learnt. He guides students to type in each sound/word for the search either on the manual keyboard or the electronic one provided by the EPD CD-ROM. Initial alphabets evoke a display of a range of words with similar orthographic realizations. Using 'climate' as an example, when 'clim' is typed-in, 'climate' appears as one of the options. The student clicks on it. 'Climate' is displayed on the screen, with its various inflections and corresponding transcriptions. The search can as well be done typing in phonetic symbols instead. The teacher controls the class by stating when and the number of times each student or group should click on the microphone icon to hear either the British or American pronunciation of 'climate'. A word is pronounced for as many times as the command is given. These pronunciation are provided by the very authors of the EPD. The teacher involves students in the evaluation process through guiding them to record their own pronunciation, by clicking on the 'record' icon, in order to compare with the disc model. *The English Pronouncing Dictionary* CD-ROM version is becoming more advanced and more popular in its use owing to the fact that it is portable, affordable and very convenient to use. It saves time, pronounces words clearly and stores difficult words for special memorization, making learning more accessible and individualized, active and less stressful.

**Purpose of the Study**

The main purpose of the study was to determine the effect of the electronic English pronouncing Dictionary instructional resource on senior secondary school students' achievement and interest in oral English specifically, the study sought to determine the effect of electronic English pronouncing Dictionary instructional resource on students' achievement in oral English.

**Research Question**

The following research question to guide the study was formulated what are the mean achievement scores of students taught oral English using electronic English pronouncing Dictionary instructional resource and those taught using the conventional resource?

**Hypothesis**

The following null hypothesis was formulated to guide the study. The hypothesis was tested at 0.05 level of significance.

**$H0_1$:** There is no significance difference.

**Method**

The design of the study was quasi experimental of pretest post-test design. This was considered appropriate for the study because intact classes were used. The area of the study was Enugu East Local Government Area of Enugu State Nigeria. The population of the study comprised all the 1,916 (one thousand nine hundred and sixteen senior secondary two (SS2) students of the government owned secondary schools in Enugu East Local Government Area of Enugu state. The sample for the study consisted of 130 S2 students of all the four co-educational schools in Enugu East Local Government Area. One intact class was sampled from each of the schools. The students in their intact classes were assigned to either the experimental group (electronic English pronouncing Dictionary, instructional resource group) or the control group (conventional text resource group). The groups were taught separately in their schools by their regular

English language teachers. To ensure conformity to experimental procedure, the researcher prepared the lesson plans, used for the experimental group and control group. The teachers were trained to be familiar with the operational concept of the study. Identified extraneous variables were controlled thus their effect on the validity of the study checked. Oral English Achievement Test (OEAT) was used for data collection. The instrument was adapted by the researcher from past questions of the West African Examination council and validated by five experts from the University of Nigeria Nsukka (UNN). The reliability of the instrument was tested before administering them on the sample for the study. The coefficient obtained from OEAT was 0.88 showing that the instrument was reliable. Using the instrument a pre-test was administered to the groups before the treatment. The experiment lasted for four weeks. A post test was administered after the experiment and the scores the students obtained from the test were used as the data for the study. The research question was answered using mean and standard deviation while the analysis of covariance (ANCOVA) was used to test the null hypothesis at 0.05 level of significance.

## Results

The results of the study are presented according to the research question in table 1 and the hypothesis in table 2.

## Research Question 1

What are the mean achievement scores of students taught oral English using electronic English pronouncing Dictionary instructional resource and those taught using conventional resource?

**Table 1: Achievement Mean Scores and Standard Deviations of Students in Pre-Tests and Post-Tests Due to Treatments**

| Group | Pre-Test | | | | | Post-Test |
|---|---|---|---|---|---|---|
| | N | Mean | SD | Mean | SD | Mean Gain |
| Experimental | 75 | 30.13 | 9.05 | 59.06 | 12.02 | 28.93 |
| Control | 55 | 29.12 | 8.30 | 32.47 | 8.68 | 3.35 |

Table one shows that students that were exposed to electronic English pronouncing Dictionary instructional resources had mean achievement score of 59.06 with a standard deviation of 12.02 at the post-test while those that were not exposed to that had mean achievement score of 32.47 with a standard deviation a of 8.68, mean gain scores of 28.93 and 3.35 for the two groups respectively implying that the students that were exposed to electronic English pronouncing Dictionary instructional resource achieved higher than their counterparts.

## Hypothesis 1

There is no significance difference in the mean achievement scores of students taught oral English using electronic English pronouncing Dictionary instructional resource and those taught using conventional resource.

**Table 2: Analysis of Covariance of the Effect of Electronic English Pronouncing Dictionary Instructional Resource on Students' Achievement in Oral English**

| Source | Type III Sum of Squares df | | Mean Square | F | Sig. |
|---|---|---|---|---|---|
| Corrected Model | 29185.047[a] | 8 | 3648.131 | 54.941 | .000 |
| Intercept | 4792.666 | 1 | 4792.666 | 72.178 | .000 |
| Pre-test | 5847.754 | 1 | 5847.754 | 88.067 | .000 |
| Treatment | 20232.614 | 1 | 20232.614 | 304.703 | .000 |
| Gender | 12.962 | 1 | 12.962 | .195 | .659 |

**Effect of Electronic English Pronouncing Dictionary Instructional Resource on Senior
Secondary School Students Achievement in Oral English in Enugu State Nigeria**

**49**

**Table 2: Contd.,**

| | | | | | |
|---|---|---|---|---|---|
| Location | 33.302 | 1 | 33.302 | .502 | .480 |
| Treatment*Gender | 95.276 | 1 | 95.276 | 1.435 | .233 |
| Treatment*Location | 474.231 | 1 | 474.231 | 7.142 | .233 |
| Gender*Location | 5.945 | 1 | 5.945 | .090 | .765 |
| Error | 8034.522 | 121 | 66.401 | | |
| Total | 334440.000 | | 130 | | |
| Corrected Total | 37219.569 | | 129 | | |
| a. R Squared =.784 (Adjusted R Squared =.770) | | | | | |

Analysis of data in table 11 shows that the probability associated with the calculated value of F(304.703) for the effect of electronic English pronouncing Dictionary instructional resource on students' achievement in Oral English is 0.000. Since the probability value of .000 is less than the. 05 level of significance (p<.05), the null hypothesis was rejected. Thus there is a significant difference in the mean achievement scores of students taught oral English using electronic English pronouncing Dictionary instructional resource and those taught using conventional resource in favour of the experimental group.

## DISCUSSIONS OF FINDING

The findings of this study on research question 1 shows that students taught with e-EPD instructional, resource had a post-test mean achievement score of 59.06 with mean gain score of 28.93, while those taught with the conventional text resource had a post-test mean achievement score of 32.47, with a mean gain score of 3.35. The difference between the mean achievement score of the experimental and control groups was statistically significant in favour of the experimental group as shown by the result presented in tables 1 & 2. The results show that electronic dictionary has a significant positive effect on students in oral English.

The result of this study agrees with Talebi and Teimoury (2013) and Gambari, Olumba and Gbodi (2013). These studies revealed that electronic instructional resources bring about greater achievement in students in oral English and other aspects of English. Talebi and Teimoury (2013) carried out a study to determine the effect of electronic dictionary on students performance in pronunciation. In another study Gambari, Olumba and Gbodi found that students taught oral English using electronic resources significantly performed better than their counterparts taught using conventional medium. The findings of this study concur with the behaviourist theory which promotes the use of standard audio models in the teaching and learning of language. The result also agrees with the cognitive-constructivist perspective which subscribes to the use of modern technology-resource in the teaching and learning of language. On the other hand the results from this study contradict the findings of Weschler and Pitts (2000) who posited that electronic dictionary does not influence students' attitude to the oral aspect of English.

## CONCLUSIONS AND RECOMMENDATIONS

The result of this study shows that the use of electronic English pronouncing Dictionary instructional resource had significant positive effect on senior secondary school students' achievement in oral English. Hence students taught oral English using the resource performed significantly higher in the achievement post-test than those taught using the conventional text resource. The use of audio-visual projections of the e-EPD proved to be more effective in facilitating the achievement and interest of students in oral English.

Based on the results of the study, the following recommendations are made for English language teachers,

students, and all other stakeholders in Nigeria education.

- English language teachers in Nigeria should be encouraged to adopt the electronic English pronouncing dictionary instructional resource as an alternative to the conventional text resource for smoother teaching and learning of oral English. This would bring about enhanced students' cognitive, affective and psychomotor outcomes of learning.

- Students should be encouraged to make use of the electronic English pronouncing Dictionary for oral English lessons both within and beyond the classroom.

- The findings of the study should be made available to the government particularly the ministry of Education and school administrators as it should spur them to provide and supervise ICT resource faculties and language laboratories equipped with computers and English pronouncing Dictionary soft ware for the schools.

## REFERENCES

1. Ado, A. (2014). Challenges encountered by learners of English as a second language. *Education and Science.* Retrieved March 18, 2014 from http://amaado.hubpages.com/hub/amaado/

2. Akeredolu-Ale B. I. (2005). Remedying some basic pronunciation errors through perception and production drills: A teacher's report. *English Language Teaching Today,* 4 51-59.

3. Anokwulu, F.I. (2010). Techniques of teaching oral English in senior secondary classes in Dekina education zone Kogi state. Unpublished M.Ed Project report, University of Nigeria Nsukka

4. Anyadiegwu, J. Obi-Okoye, A. (2009). *Principles and methods of teaching English as a second Language.* Onitsha: D-Bell Graphic Press Services.

5. Azikiwe, U. (2005). Gender influence on achievement in language. *International Journal of Arts and Technology Education,* 4, 41-56

6. Banjo, A. (2012). The deteriorating use of English in Nigeria. Paper delivered at the inauguration of the University of Ibadan English Language Clinic Series, March 19, 2012.

7. Cruttenden, A. (2008). *Gimson's pronunciation of  English.* London: Arnold.

8. Davenport, M., & Hannahs, S.J. (2010). *Introducing phonetics and phonology.* London: Hooder Education.

9. De Schryver, G-M.(2003). Lexicographers' dreams in the electronic dictionary age *International journal of lexicography,* 16(2), 143-199.

10. Egwuogu, C.B. (2012). Challenges and techniques in the teaching of English pronunciation in junior secondary schools in nigeria. *Asian Journal of Social Sciences and Humanities.* Japan: Leena and Luna International, 1(4) 212-219.

11. Eyisi, J. (2007). *Phonetics of Enlgish: A hands-on guide to correct pronunciation.* Awka: Scoa Heritage Systems.

12. Gambari, A. I., Olumba, R.N., & Gbodi, E.B. (2013). Effects of audio and video compact disc instructional packages on students' performance in senior secondary school phonetics in Minna, Nigeria. *Journal of Sciences, Technology, Mathematics and Education,* 9(1), 250-261.

13. Igboanusi, H. (2003). Semantic dislocation in Nigerian English. In Peter Lucko, Lothar Peter &Hans-Georg Wolf (Eds). *Studies in Africa varieties of English.* Frankfurt: Peter Lang, 57-68.

14. Jowitt, D. (1996). *Oral English for senior secondary schools.* Ibadan: Spectrum Books Limited information Technology & Teacher education, 2833-2836. Retrieved March 18, 2014 from the ERIC database. (ED496190).

15. zandau, S.I. (2001). *Dictionaries: the art and craft of lexicography.* Cambridge: Cambridge University Press.

16. McGregor, W.B. (2009). *Linguistics:* an introduction. London: continuum.

17. Nesi, H. (2009). Dictionaries in electronic from. In Cowie, A.P. (Ed). *The Oxford History of English Lexicography.* Oxford: Oxford university press, 458-478.

18. Nigerian Educational Research and Development Council (NERDC). (2007). *Senior secondary education curriculum: English language for SSI-*3. Abuja: NERDC

19. Nigerian Educational Research and Development Council (NERDC). (2008). *Frequently asked questions (FAQ): The new senior secondary school curriculum structure.* Abuja: NERDC.

20. Nnamani, A.P. (2010). Status of Oral English Instruction in secondary schools in Nsukka education zone of Enugu state. Unpublished M.Ed Project Report, University of Nigeria, Nsukka.

21. Olatunji, S.O. (2012). English language teachers' attitude to the promotion of the standard Nigerian English: A survey from a Nigeria city. *Multidisciplinary Journal Ethiopia,* 6(3), 268-282.

22. Onuigbo, S. (1997). *Oral English for schools and colleges.* Onitsha: Africana First Publishers Limited.

23. Onuzulike, I. (2011). Information and Communication technology competencies of English language teachers in unity schools of South East zone of Nigeria. Unpublished M.Ed project Report, University of Nigeria, Nsukka.

24. Roach, P. (2009). *English phonetics and phonology:* a practical course. Cambridge: Cambridge University press.

25. Roach, P. Hartman, J. & Setter, J. (2006). *English Pronouncing Dictionary.* Cambridge: Cambridge university press.

26. Sharpling G. (2012). *Pronunciation.* The Centre for Applied Linguistics, University of Warwick.

27. Silvia, P.J. (2001). Interest and interests. The psychology of constructive capriciousness. *Review of General Psychology,* 5, 270-290.

28. Sobkbwiak, W. (2005). E-dictionaries and phonolexicographic needs of ESL users. AFRILEX, 134-151.

29. Szynalski, T.P. (2012). Review of the Cambridge English pronouncing Dictionary 16th edition). Retrieved May 9, 2014 from http://www.antimoon.com/how/cepd-review.htm

30. Talebi, F., & Teimoury, N. (2013). The Effect of Computer-assisted Language learning on improving EFL learners' Pronunciation Ability. *World Journal of English Language* 3(2), 52.

31. Ugorji, C.U. (2002). Teaching English pronunciation in Igboland: Techniques and procedures. In E. Otagburuagu & P. Anyanwu (Eds), *Concepts & issues in language studies (*Pp. 95105). Owerri: Cel-Bez &Company Publishers.

32. Weschler, R., & Pitts, C, (2000). An experiment using electronic dictionaries with EFL Students. *The Internet TESL Journal (*6) 8. Retrieved March 18, 2014 from http/iteslj.org/Articles/Weschler-ElectroDict.htm/