Influence of Computer Based Learning English Pronunciation and Learners' Achievement in Primary Schools; Kenya

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Abstract

Despite the awareness of native language interference and different ways of pronouncing words, it is not clear how teachers are making efforts to solve this challenge. English pronunciation involves too many complexities for learners to strive for a complete elimination of accent. Teachers do not have enough time in class to give proper attention to the aspect of instruction because it is tedious. Therefore pronunciation has been neglected for long; teachers tend to think that subject is very technical. The objectives were; to establish the relationship between the students taught with computer and those taught by regular method. Find out influence of computer on pronunciation. Theories utilized were system approach where teachers set objectives, develop sequence of instructional activities directed by means of materials which students exploit on their own and Piaget where mental constructs are developed by children through experiences in the environment. Both qualitative and quantitative approaches were used to enable appreciation of all the aspects. The study adopted Experimental design involving static group comparison design. Simple random sampling was used to select the school and purposive sample to obtain the class. Experimental group was exposed to computer and control to regular teaching for nine weeks. The teacher in experimental group was trained on the use of computer to teach new words. Post- test (reading) and questionnaire were administered to all respondents. Experts ascertained their reliability. Data was analyzed through use of inferential statistics which were t-test and chi-square. Descriptive statistics involving frequencies, percentages and standard deviation were also used. Hypothesis was formulated for future use. The results of the study show that computer facilitates learning pronunciation better compared to traditional teaching, it motivates, there is relationship between use of computer and achievement. Therefore Computer be integrated in teaching English to improve correct pronunciation. It is recommended that; computer be flipped into classroom and policy on use of instructional media be emphasized.

Key Words: *Computer Based Learning, Pronunciation, Achievement*

INTRODUCTION

Teaching English pronunciation is an area of language teaching that many English teachers avoid. While there are many textbooks and instruction manuals available, as well as books on the theories and methodologies of language teaching, there is comparatively little on learning pronunciation.

The sense of self and community are bound up in the speech rhythms of our first language. These rhythms were learned in the first year of life and are deeply rooted in the minds of pupils. Therefore it is common for pupils to feel uneasy when they hear themselves speak with the rhythm of a second language. They find that they —sound foreign'' to themselves unconsciously. Teachers use traditional pronunciation training which usually focuses on minimal-pair drilling of vowel and consonant sounds, concentrating on individual sounds that are hard for pupils to hear or produce in the hopes of achieving mastery of the English sound system. Unfortunately, this kind of drilling often produces distressing results and tends to take up a great deal of available class time. Pronunciation has been taught with a goal of speaking like a native speaker but this is not practical. Pronunciation is described by Gilbert (2010) as something orphaned in English program around the world and continues to be an orphan.

Generally, three approaches are used to teach English pronunciation in our schools. These are intuitive-imitation approach where learners listen and imitate rhythms and sounds without any explicit instruction. Particular technologies, such as audiotapes, videos, computer based programs and websites are used for this.

The second is analytical-linguistic approach, the learners are provided with explicit information on pronunciation such as phonetic, articulatory descriptions and vocal charts, though this can be presented in various interactive speech software and website today.

Last is integrative approach which is viewed as an integral component of communication, rather than isolated drill and practice sub-skill. Pronunciation is practised within meaningful task-based activities. Learners use pronunciation –focused listening activities to facilitate the learning of pronunciation thus more focus on stress, rhythm and intonation, pronunciation is taught to meet the learner's particular needs (Chen, 2007).

The primary goals of pronunciation teaching are for the learners to develop intelligible speech and to be able to effectively communicate. In Kenya, English teaching is more focused on grammar/translation than communicative competence. Teachers and parents believe in grammar-based teaching and administrators prefer uniform textbook, a standard syllabus and similar exams. Therefore improving English pronunciation will boost self esteem, facilitate communication and possibly lead to better job or at least more respect in the work place.

Statement of the Problem

Despite the awareness of the native language and different ways of pronouncing words, it is not clear how teachers are making efforts to solve this challenge. Pronunciation involves more than individual sounds thus word stress, intonation, sentence stress and word linking all influence the sound of spoken English. English pronunciation involves too many complexities for learners to strive for a complete elimination of accent. A pupil's first language interferes with English pronunciation. Sometimes the pupil will be able to identify specific problem sounds and sometimes they do not. Inability to hear certain English sounds (vowels) that the native language does not contain is a greater challenge. Teachers do not have enough time in class to give proper attention to this aspect of English instruction. Drilling of sounds over and over again often leads to discouraging results, and discouraged pupils and teachers end up wanting to avoid pronunciation altogether. Teachers and pupils can overcome the frustrations by thinking of the goal of pronunciation, difficulties and boredom often associated with pronunciation by focusing their attention on development of pronunciation instructional aid (CBL).

A pupil's first language often interferes with English pronunciation. For example, /z/ is aspirated in English but not in Luo, so when a Luo speaker pronounces 'zebra' it will sound sebra', and Luhya will pronounce fault to sound fold. Sometimes the students will be able to identify specific problem sounds and sometimes they won't. You can ask them for suggestions, but you will also need to observe them over time and make note of problem sounds. Another challenge resulting from differences in the first language is the inability to hear certain English sounds that the native language does not contain. Often these are vowels, as in 'ship' and 'sheep,' which many learners cannot distinguish. The Gusii and Agikuyu are known for confusing /r/ and /l/, Luo /s/ and /z/, Luhya /t/ and /d/ as their language contains neither of these but instead has one sound somewhere between the two. For problems such as these, listening is crucial because pupils can't produce a sound they can't hear. Descriptions of the sound and mouth position can help students increase their awareness of subtle sound differences. Therefore the study endeavoured to investigate whether computer based learning could reduce wrong English pronunciation.

The objectives of the study were; To establish the relationship between the pupils taught with computer and those taught by regular method and to find out influence of computer on English pronunciation. This study was based on two theories namely; Piaget's theory of cognitive development and System theory approach. Piaget advocates for use of media resources. The theory states that mental constructs are developed by children through experiences in the environment. Piaget further assets that in the realm of education pupils should be allowed a maximum of activity on their own, directed by means of materials which permit their activities to be cognitively used. System approach theory was utilized where teachers set objectives, develop sequence of instructional activities which students exploit on their own directed by means of the material.

MATERIALS AND METHODS

This study was conducted in selected Primary schools in Nyatike Sub county in Migori County. This sub county was picked because there exists profound pronunciation therefore there was need to explore all possible means of addressing the issue. Target population was 111 Primary Schools. The study employed the group experimental design involving static- group comparison design because this design has better control over most of the variables. Two groups were selected; experimental was given treatment and control usual condition. After one group received the treatment, all the groups were post tested to see the relative effect on the treatment group. The process of combining qualitative and quantitative designs was used. Standard four was chosen because it is a transitional class and pupils have acquired reading skills. Purposive sampling was used to obtain standard four class and simple random to select both control and experimental schools.

Diverse research instruments such as (RAT) Reading Achievement Test, questionnaire and interview schedule were used to collect data The researcher used descriptive statistics consisting of percentages, means and standard deviations to analyze the data. Percentages were used to compare the score of each subject in relation to each other. Mean and standard deviation was for examining the difference in achievement of the given groups. To facilitate this analysis, raw data from RAT was also summarized in tables before being subjected to inferential statistics.

In inferential statistics, independent samples t- test and chi- square were used to determine the level of significance of the difference in achievement of the given groups. Independent sample t-test which is a parametric test was picked upon because the data which was collected were in ratio scale and from a normally distributed population. The p-value obtained was tested at alpha = 0.05 level of significance. This was to formulate hypothesis. The chi-square a non parametric test was carried out on data relating to opinion of subjects towards learning pronunciation. It sought to establish if there existed any relationship between the concerned variables. The p-ratio obtained was tested at alpha = 0.05.

FINDINGS AND DISCUSSION

After a period of nine weeks of learning pronunciation a post test was administered to the two groups, the experimental and the control. The experimental group learned through CBL and the control through traditional method. A breakdown of the results revealed the following means for the groups that sat for the post test. The experimental had 63.8 and control 49.5.

Difference between Pupils Taught Using CBL and Traditional Method

In the first objective, the study sought to test the difference in means of the experimental group and control group. This aimed at testing the effectiveness of the CBL as opposed to traditional methods of learning. The t-test p- value was 0.001 as shown in table 1. The p-value is lower as compared to the set alpha level of 0.05. This indicates that there is significant difference in the post test means of the control groups. The difference is in favour of experimental group that was exposed to CBL. It leads to a conclusion that CBL is effective in improving students' achievement in English pronunciation as opposed to traditional method of learning. This finding is in agreement with the findings of several other researchers' findings. Wanjala (2005) found out that computer based learning improved achievement among the learners. This use of computer in learning is documented to have enabled pupils to pronounce words correctly despite the native interference.

Table 1. The Difference between pupils taught using CBL and traditional method

	df	Sig (2- tailed	Mean Difference	Std Error Difference	95% Confidence Interval of the Difference	
					Lower	Upper
Post test	157	0.001	15.304	3.354	-3.986	9.270

Moreover the interactive nature of computer offered opportunity for pupils to develop greater understanding of many of the English concepts which they met. Other research has also found out that CBL is effective as a mode of learning in other areas. Computer based learning in English has been found

to improve achievement among the learners in the learning of pronunciation. This could be attributed to the fact that using computer as a way of learning meets the varied demands of the different individual at individual level (Vincent, 2003). The study of this point contributes towards the existing evidence that CBL is effective in improving learners' achievement in English it can be recommended with strong confidence that using CBL in Kenyan primary schools will improve the rather wrong pronunciation in English.

The CBL creates an environment for learning that was free of discrepancies in treatment of pupils. This is based on the response gotten from the subjects as given in the open ended part of questionnaire. One respondent said _'there was no harassment when I failed to pronounce the word correctly but instead I was encouraged to try again. I was motivated by the hints available and congratulations for example good! The good achievement can be explained how the pupils took the learning process. They were highly motivated and appreciative of the new nature of learning. The pupils liked and were encouraged by the feedback nature of the CBL programme prepared by languagenet.com. one of the pupils in her response said _' I got surprised that the teacher (computer programme) was so active anytime my answer was correct, I was told good!!!''

The second objective was to find out the influence of computer on English pronunciation. The opinion was collected through questionnaire which contained both open and closed ended items. The respondents were asked to tick the appropriate choice that best explained their feels on the five statements. The experiment group agreed with the statements that CBL had a positive influence on learning English pronunciation. They agreed that computer polishes the accent of the pupils, improves quality of teaching, teachers pronounce better and effectively, it is amusing, motivating and is more beneficial pupils than traditional method. The summaries of their responses as given by the means is as indicated in table 2.

Table 2. Influence of CBL on learning pronunciation

Influence	Experimental	Control
Pronunciation drill polish pupils' accent	37 (57.81)	40 (57.97)
Computer teaching is more beneficial than traditional	42 (65.62)	36 (52.17)
Computer improves quality of teaching	34 (53.12)	39 (56.52)
Teaching with computer is amusing, interesting and motivating	53 (82.81)	51 (73.91)
Computer reduces burden on teachers when teaching pronunciation	59 (92,18)	61 (88.40)

Experimental group agreed that drill polishes pupils accent because it is interesting, motivating and they can practice at any time at their own pace. This has been supported by Neri and Strik (2002, 2003), the technological and software methods to teach pronunciation are very different from traditional methods. The control also agreed with the statements. However there are many studies on teaching English pronunciation all of which take a different approach. This is supported by Hsieh (2000) and Lin and Kuo (2001) who discussed the use of K.K phonetic symbols, phonics or combining K.K, phonetic symbols and phonics to teach English pronunciation with modern technology to assist teaching English pronunciation.

Descriptive Analysis

The descriptive analysis hint on a possibility of experimental group being superior in the achievement; this has been confirmed by an inferential statistic a t-test that was carried out and the results indicated that experimental group had positive outcome. A t-test was carried out on the data for the purpose of inferring from the data and setting of the hypothesis. The hypothesis was formulated stating that there is significant difference between pupils taught using CBL and those taught by traditional method.

Table 3. Chi- Square on teachers feelings on the use of Computer

Feeling	Experimental	Control
Teachers should make use of computer to teach English pronunciation	11 (57.89)	8 (42.10)
There is difference between a real teacher and this programme	15 (78.94)	4 (21.05)
Computer is more effective than traditional	9 (47.36)	10 (52.63)
Computer promotes accurate and uniform pronunciation	14 (73.68)	5 (26.31)

$$X^2 = 9.22 \quad df = 2 \quad\quad P<0.001$$
Note figures in parentheses are percentages
Figures outside parentheses are frequencies

Secondly the research aimed at getting the respondents feeling about the use of computer in learning. This was done by presenting a series of statements under the main question. In an open ended question the questionnaire inquired why the subjects felt the method / computer was more helpful, the respondents had the following reasons *1.'" I feel motivated because I don"t need to strain repeating the words severally""*
2. Because of the use computer, it makes one understand more than on paper. 3. Languagenet.com has good and easy words 4kids. Teachers observed that pupils were more active during CBL classes than traditional classes. Control group remained silent about it because they found nothing new.

However control disagreed and were undecided with the statements. This probably because they have no experience on learning pronunciation through computer. The disagreed that using in teaching pronunciation computer does not reduce burden on teachers. This is because lessons in which computer is integrated needs a lot of preparation and it has many complexities regarding the use, for example the software which costs Kshs. 5000 per child per year, time and skills among others. Therefore, it is too demanding, stressful and frustrating. Therefore they preferred traditional method where teachers use the phonetic alphabet, and activities such as transcription practice, diagnostic passages, detailed description of the articulatory systems, recognition/discrimination tasks, developmental approximation drills, focused production tasks (e.g., minimal pair drills, contextualized sentence practice, reading of short passages or dialogues, reading aloud/ recitation), tongue twisters and games (e.g., Pronunciation Bingo). Other popular methods are listening and imitating, visual aids, practice of vowel shifts and stress shifts related by affixation, and recordings of learner's production (Murcia, 1996; Johes, 2002).

Scholars have revealed that teachers teach differently, as such there is no one teaching strategy, method or technique that is successful for all pupils in every situation

CONCLUSION

Based on the results of this study, it can be concluded that computer facilitates learning pronunciation better compared to traditional teaching, computer based learning of English pronunciation is effective on all the pupils regardless of their native language interference, the words were uniformly pronounce leading to greater confidence in speaking English. This environment was a great motivator to the pupils. CBL is one method that rises above challenges of native language interference and need for repeating words during teaching session.

The use of CBL system in this study has demonstrated a great potential to promote cognitive skills of pupils in English pronunciation. The problem of English pronunciation being difficult to teach by traditional method is therefore resolved by the use of a CBL that emphasizes collaborative learning, self-spaced and individualized learning.

RECOMMENDATIONS

In relation to the findings, it is concluded that CBL programme has the potential to attain English pronunciation both in achievement and motivation and therefore should be used in teaching and learning of pronunciation. In order to realize the use of computer as an instructional media, the following recommendations were made;
1. ICT facilities like computers should be tax free to enhance its penetration into classroom.
2. The use of media is only strengthened during teacher training after teaching practice all is forgotten, therefore the government to strengthen the policy on use of media in teaching.
3. Teachers should be equipped and motivated on the use of CBL

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BIO-DATA

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