

## EFFECT OF USING AUDIO-TUTORIAL SYSTEM IN TEACHING SOME CONTRASTING CONSONANT SOUNDS OF ENGLISH LANGUAGE PRONUNCIATION IN SECONDARY SCHOOLS IN ILORIN METROPOLIS

By

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### ABSTRACT

*The research was design to find out the effect of audio-tutorial system on the teaching of some contrasting sounds in English Language. This is a true experimental study with pre-test post-test control group design. Senior secondary school II students were stratified into three ability levels (high, average and low) using their pre-test scores in contrasting consonants sounds in English Language and 96 students were randomly assigned into experimental group (48) and control group (48) using simple random technique. Four research questions and four hypotheses were raised to guide the conduct of this study. Treatment instrument (audio-tutorial system) and English pronunciation test formed the two instruments used in this study. Data collected were analyzed using frequency counts, percentages, mean, standard deviation, t-test and one way analysis of variance. The results revealed that experimental group outperformed the control group. The results also indicated that male and female perform better when they are exposed to the use of audio-tutorial system in contrasting sounds in English Language. That is, audio-tutorial system is gender bias. The following recommendations were therefore made: government should equip the computer laboratory with necessary multimedia equipment to enable teachers and students integrate more innovative strategies in the class and the school authorities should train teachers in the use of audio-visual materials and equipment in the school so as to encourage both the teachers and students to integrate them for instruction in the class and for self-learning development in the school.*

**Keywords:** Audio-tutorial System, Consonant Sounds, Contrasting Consonants Words, etc.

### INTRODUCTION

Audio – Tutorial System is an idea propagated by an American Educationist known as S. N. Postlethwait in the year 1972. In this audio –tutorial system, emphasis is laid on learning as an activity performed by an individual and not something done to an individual. It simply means that learners learn by themselves through

their own efforts and teachers merely facilitate or provide necessary assistance for such learning. Teacher in the role of tutor provides a situation quite conducive to his students' learning by providing the needed direction, facilities and motivation. When such assistance is carried out through audiotape/disc is named as 'Audio Tutorial System'.

Audio – tutorial system as defined by Mangal (2010) is the system or teaching strategy in which well planned instructions carrying appropriate learning experiences and specially assigned activities are provided to the learners on the audiotape/disc to be followed by students according to their own pace and requirements within a specific duration of time, occasionally helped by an instructor with an eye of achieving maximum teaching– learning output. Audio –tutorial system as a teaching strategy helps learners work independently and proceed on the path of learning with their own pace. It proves a better means of providing learner-based and individually tailored education. If one receives instructions through audiotape/disc for proceeding on the learning path in this system, it may suit the requirements of so many learners who cannot afford attending regular classes as a result of any compelling situations. It is a good instructional mode for ability and needs of all types of learners (high, average and low), through this mode, low and average students are seriously assisted and brilliant students are equally helped to move rapidly through the course.

The following are the three basic study sessions usually associated with teaching – learning using the audio-tutorial system:

1. Independent Study Session: in this session, the instructions related to the course unit (encoded on the audiotape/disc) are followed by the learners as part of their independent study in the class or computer laboratory. In this laboratory/class, booths are provided for the individual for independent study. These booths are equipped with a tape recorder/DVD/VCD players and a movie projector together with the materials appropriate for the assigned work. At the beginning of the instruction, each learner is given a set of behavioral objectives. During such independent study session, students may be assisted by an instructor on duty

when necessary, especially when confronted with difficult situation during the lessons.

2. General Assembly Session: this session is open to all the students involved in the teaching/learning of the week's work. Usually, it is scheduled near the end of the week. In this session, the students are exposed to the quest lecture, films, computer assisted instruction, etc to throw more lights on the various related topics or work assigned to the students for their independent study. During this period, students are given the opportunities to discuss their individual problems, express their views, and consult each other for help in their independent study. This session can equally be used for revision of content related test/examination questions discussed in the audio narration so as to evaluate their learning outcomes of the independent study session. Attendance is however, not compulsory, students attend the session for their own benefits.
3. Small Assembly Session: a group of 7 or 8 students assembled in the study class regularly for interaction with themselves and also with the instructor. Such a session is usually held as a matter of follow-up work carried out in the independent study session. Here both the individual and group guidance may be accessible to them through the resources presented by their course instructor. The teacher may arrange for a life discussion on the learning units of the content covered in the independent study sessions. The students may deliver short lecture or make some short presentation and as well responded orally to quiz or test and thereafter be helped where they are facing difficulties. In this way, the small assembly session is utilized for filling up gap in the study left through independent study session and providing opportunities for fixing up the knowledge and understanding related to the learning

experience gained. Thus, with the help of the above activities, the students may be helped in acquiring the desired learning experiences related to one or the other units of their prescribed subject or course (Uma, 2010, p. 37).

English Language is one of the compulsory subjects to pass with credit level in Nigeria. It is also a generally accepted or official language in Nigeria. Therefore, it is made compulsory for every student to have proficiency in the language and proficiency must show in the ability to write and speak with good pronunciation. Pronunciation is a set of habits of producing sounds. The habit of producing sound is acquired by repeating the practice word over and over again and being corrected when it is wrongly pronounced. Importance of correct pronunciation as noted by Hismanoglu (2006) is essential for successful oral communication in the school and in the work place. Pronunciation refers to the production of sound that is used to make meaning. It includes attention to the particular sounds of a language (segments), aspects of speech beyond the level of the individual sound, such as intonation, phrasing, stress, timing, rhythm, how the voice is projected (voice quality), etc. (Cook, 1996, [www.questia.com](http://www.questia.com), 2016).

Kindersley (2011) contended that the ability to speak English fluently requires not only a good understanding of grammar and a rich vocabulary but also the ability to speak smoothly and expressively with correct pronunciation. Proper English pronunciation can be a big problem especially to students who are learning English as a second language different from their native language. Therefore, to overcome this pronunciation problem, many strategies can be adopted to improve one's pronunciation and one's personal speaking skills and these include:

1. Listen to experts or native speaker's spoken English as often as possible: when students listen to how experts pronounce various words

and phrases and model their own pronunciation on what they hear, it will lead to an improvement in correct pronunciation.

2. Don't forget to learn the word stress of new words: every English word has its own stress, or intonation. For example, the word 'believe' has two syllables (be and lieve), but only the second syllable is stressed. We say be'lieve and not 'believe. Dictionary will show the syllable stress by an apostrophe (') before the syllable to be stressed. When a student practices this, pronunciation skill will improve.
3. Work out sounds with problems in English: depending on what one's language is, one may have problems with certain sounds. For example, French speakers have difficulties with 'th'; Arabic speakers have difficulties with 'p' and 'b' and so on.
4. Practice the words you find difficult: in a 'minimal pair' exercise. For example, if you have difficulty distinguishing between 'p', try practicing pairs of words which are the same except for the sound 'p' and 'b'; for example, 'pair'; 'pond' and 'bond' 'bond' 'pie' and 'buy' etc.
5. Learn to recognize spelling patterns: For example, "tion" on the end of a word is pronounced "shun", while "sion" can be pronounced "zhun". There are often many ways to pronounce a particular spelling pattern, but it certainly helps to know what the variations are. For example, the pattern "ough" can be pronounced "uff" as in "enough" and "tough", or "or" as in "ought" and "bought" or "oh" as in "although" and "dough".
6. Don't rush: If you speak too fast, the danger is that you could skip over some words, or fail to pronounce them completely, or mix them up. If you speak too slowly, you might end up

sounding unnatural. But it's better to speak slowly and clearly than too quickly (<http://www.english-at-home.com/pronunciation/improving-your-pronunciation>, 2016).

7. Fraser (2000) noted that many English teachers struggle with teaching pronunciation and concluded that the teacher training courses give them insufficient basics of phonetics. The teacher trainers in Malaysia also revealed that not much emphasis is placed in preparing teachers for teaching pronunciation (Nair, 2006). Pronunciation has often been viewed as a skill that is most resistant to teach due to its strict phonemic description, complicated phonetics and phonology, complex and often unproductive terminology of articulatory phonetics. Therefore, it comes to no surprise that unbalanced scant attention is paid to pronunciation in teacher training programmes. The insufficient training in this area has thus inadequately equipped English teachers to be confident to deal with pronunciation.

In addition, looking at the high teacher-student ratio in the classroom, it is unrealistic for teachers to attend to individual student's speech sounds even if the teacher is well-equipped with phonetics and phonology expertise. There are usually about 30 to 40 students or even more in a class. Teachers experience difficulties when teaching pronunciation in such large classes. The teacher-student attention is minimized and students' opportunities to speak are lessened (Brown, 2001; Kankam, 2003). This situation is unavoidably worsened with the fact that proficiency and ability vary widely across students. The same materials and assessment tools used for low proficiency students are seemed to be less challenging for students with high proficiency levels, and vice versa (Su, 2008). The teaching and learning

quality is further constrained by human limited capabilities. Even an excellent teacher of good pronunciation can only repeat the pronunciation of a word for mere limited times and moreover with varied quality each time but computer and any other teaching machine can that several time without being tired.

The base line study carried out by the researchers (Abdulsalam, Oguiche & Omiola, 2016) revealed that, students offering English as a subject need to be helped by introducing some innovative strategies so as to raise the interest and active participation of students towards some problematic sounds being confronted when pronouncing English words. The suggestions or recommendations made by students and teachers during this base line study calls for the introduction of innovative strategy such as 'Audio – Tutorial System' into teaching the contrasting consonants sounds concept in English Language. Although, some English Language teachers explained that several drilling strategies have been employed in teaching the concept in classroom, yet much improvement has not been achieved or recorded. Therefore, there is need to introduce new innovative strategies to help the students overcome some difficulties in pronouncing sounds in English Language. This research is therefore set out, to introduce audio-tutorial system to teaching of phonology so as to enrich learners' performance and improve the general falling standard of education.

### ***Purpose of the Study***

The main purpose of this study is to investigate the effect of audio-tutorial system on some contrasting consonant sounds of English Language in secondary schools in Ilorin Metropolis. Specifically, the study examined:

- I. The effect of audio-tutorial system teaching strategy on the pronunciation of the contrasting consonants sounds based on students

performance in the post-test scores of the experimental group and the control group in English Language;

2. The effect of audio-tutorial system teaching strategy on the pronunciation of the contrasting consonants sounds in English Language based on gender;
3. The effect of audio-tutorial system teaching strategy on the pronunciation of the contrasting consonant sounds in English Language based on students' ability levels (High, Average and Low).

### Research Questions

1. Will there be significant effect on the pronunciation of the contrasting consonants sounds based on students performance in the post-test scores of the experimental group and the control group in English language using audio-tutorial system?
2. Will there be any significant effect on the performance of male and female students when taught contrasting consonants sounds in English Language using audio – tutorial system?
3. Will there be any significant effect on the performance of students' ability levels (High, Average and Low) when taught contrasting consonants sounds in English Language using audio – tutorial system?

### Research Hypotheses

**Hoi:** there is no significant effect in the performance of students when taught some contrasting consonants sounds in English language using audio-tutorial system.

**Hoi:** there is no significant effect in the performance of male and female students when taught contrasting consonants sounds in English Language using audio – tutorial system.

**Hoi:** there is no significant difference in the performance of students' ability levels (High, Average and Low) when taught contrasting consonants sounds in English Language using audio – tutorial system.

### METHODOLOGY

This is a true experimental design with pre-test, post-test control group design. This is believed to be appropriate for this study because the researchers randomly selected subjects into both experimental group and control group using their pretest scores on contrasting consonants sounds concepts in English Language. The target population for this study was all the Senior Secondary School II students in Ilorin Metropolis (Ilorin, the capital of Kwara State is located in the Northern Central region of Nigeria). Stratify sampling technique was used first to group students into three ability levels (High, Average and Low) learners. Purposive sampling technique was used to choose the participating school because of facilities such as electricity, computers laboratories, and availability of multimedia projectors, television, DVD players, VCD players, and tape recorders and so on.

Simple random technique was therefore used to assign 96 students. 48 students were chosen for the experimental group (16 High Ability Students, 16 Average Ability Level Students and 16 Low Ability Level Students), also, 48 students were chosen likewise for the control group making a total of 96 students. Two research instruments were used in this study: 1. Treatment Instrument (audio tutorial system narrated and encoded audio) and 2. Test Instrument. Treatment instrument was designed only for the experimental group while test instrument was designed for both the experimental group and control group pre-test and post-test exercises. Treatment instrument was validated by two Educational Technology experts and two English Language experts checked the face and content validity

of both narrated audio and the test instrument. One experienced English Language teacher assessed the pronunciation, spellings and grammatical structure of the sentences used throughout the presentation. In addition, test instrument was pilot tested using 20 students from different schools apart from those that were used for the main study. The reliability of the test instrument was later tested using test re-test method and its value resulted into 0.706.

After teaching the experimental group using recorded audio CDs containing correct pronunciations of contrasting consonants sounds in English Language on the computers and with other relevant teaching materials and equipment during independent study session, students reported in the class for interactive session during general assembly session. During this period, students thrash out the difficult areas encountered by themselves during independent study session and they equally practiced the relevant questions based on the objectives of the content. At the small assembly session, the students had interactive session with their teachers and several questions regarding the content were discussed, most especially on areas where they find difficult to understand. During this period, the teachers asks them questions related to the objectives of the topics discussed during the

independent study session and as well help them out where they are experiencing difficulties. Control group was taught the same content of contrasting consonants sounds pronunciation using conventional method. At the beginning of the programme, both experimental group and control group were pre-tested using the test instrument on contrasting consonants sound in English Language and at the end of the lessons, the same groups were post- tested with the same test instrument. The test results (pre and post tests) were sorted collated and analyzed using inferential statistics of T-test and Analysis of Variance (ANOVA) and thus answered the research questions and hypotheses raised in the study.

## ANALYSIS AND RESULTS PRESENTATION

### *Research Question One and Hypothesis One*

**Q1:** will there be significant difference in the pre-test mean scores of experimental group and control group in pronouncing the contrasting consonants sounds in English language?

**Hoi:** there is no significant difference in the pre-test mean scores of experimental group and control group in pronouncing contrasting consonants in English language.

**Table 1:** Analysis and results of pre-test of both experimental and control group

Group	No	Mean	Std. Dev	t	df	Sig. (2-tailed)	Decision
Experimental group pre-test	36	17.06	3.680	2.110	35	.062	Hoi: is accepted
Control group pre-test	36	16.50	3.256				

Significant at 0.05 Alpha levels

The result of paired sampled t-test in the above table shows that, there is no significant difference between the pre-test of experimental group mean scores and control group mean score before the experiment is embarked upon. This is because sig (2-tailed) value which is .062 is above the required cut of 0.05 alpha levels. Therefore, the hypothesis one is therefore retained.

### ***Research Question Two and Hypothesis Two***

**Q2:** will there be significant difference in the post-test mean scores of experimental group and control group in pronouncing the contrasting consonants sounds in English language?

**Hoi:** there is no significant difference in the post-test mean scores of experimental group and control group in pronouncing contrasting consonants in English language.

**Table 2:** Analysis and result of post-test mean scores of experimental group and control group

Group	No	Mean	Std. Dev	t	df	Sig. (2-tailed)	Decision
Experimental group post-test	36	56.92	4.789	11.830	35	.000	Hoi: is rejected
Control group post-test	36	44.03	3.476				

Significant at 0.05 Alpha levels

The result of paired sampled t-test in the above table shows that, there is significant difference between post-test mean scores of experimental group and control group mean scores after teaching the experimental group contrasting consonants sounds using audio-tutorial system strategy and control group using conventional method. This is because sig (2-tailed) value which is .000 is less than the required cut of 0.05 alpha levels. Therefore, the hypothesis one is therefore rejected.

### ***Research Question Three and Hypothesis Three***

**Q3:** Will there be any significant difference in the performance of male and female students when they are taught contrasting consonants sounds in English Language using audio – tutorial system instructional strategy?

**Hoi:** there is no significant difference in the performance of male and female students when they are taught contrasting consonants sounds in English Language using audio – tutorial system instructional strategy.

**Table 3:** Analysis and result of independent t-test on the performance of male and female students when taught using audio-tutorial system.

Group	No	Mean	Std. Dev	t	df	Sig. (2-tailed)	Decision
Male	18	56.67	5.053	.309	34	.759	Hoi: is accepted
Female	18	57.17	4.643				

Significant at 0.05 Alpha levels

The result of independent sampled t-test in the above table shows that, there is no significant difference in the performance of male and female students when they are taught contrasting consonants sounds in English language using audio-tutorial system. This is because sig (2-tailed) value which is .759 is above the required cut of 0.05 alpha levels. Therefore, the hypothesis three is therefore accepted.

#### **Research Question Four and Hypothesis Four**

**Table 4:** Analysis and result of one-way analysis of variance among students' ability levels when they are taught using audio-tutorial system for teaching pronunciation in English language.

Group	No	Mean	Std. Dev	F	df	Sig. (2-tailed)	Decision
High ability level students	12	59.08	3.728	9.265	33	.001	Hoiv: is rejected
Average ability level students	12	52.92	3.288				
Low ability level students	12	58.75	4.693				

Significant at 0.05 Alpha levels

The result of one way analysis of variance in the above table shows that, there was significant difference in the performance of students based on their ability levels when they are taught contrasting consonants sounds in English language using audio-

**Q4:** Will there be any significant difference among students' ability levels (High, Average and Low) when they are taught contrasting consonants sounds in English Language using audio – tutorial system instructional strategy?

**Hoiv:** there is no significant difference in performance of students among students' ability levels (High, Average and Low) when they are taught contrasting consonants sounds in English Language using audio – tutorial system instructional strategy.

tutorial system. This is because sig (2-tailed) value which is .001 is less than the required cut of 0.05 alpha levels. Therefore, the hypothesis four is therefore rejected.

**Table 5:** Post hoc Turkey HSD ANOVA Multiple comparison table

(I) Students' ability levels	(J) Students' ability levels	Mean Difference		Sig.
		(I-J)	Std. Error	
High ability level students	Average ability level students	6.167*	1.611	.002
	Low ability level students	.333	1.611	.977
Average ability level students	High ability level students	-6.167*	1.611	.002
	Low ability level students	-5.833*	1.611	.003
Low ability level students	High ability level students	-.333	1.611	.977
	Average ability level students	5.833*	1.611	.003

Significant at 0.05 Alpha levels



To further know where the significant lies in the performance of students when they are taught contrasting consonants sounds in English language using audio-tutorial system based on students' ability levels, (high, average, and low) post hoc turkey HSD ANOVA multiple analysis was carried out and the test revealed that, there was significant difference between high ability level of students and average ability students ( $p=.002$ ), but no significant difference between high ability level of students and low ability level of students ( $p=.977$ ). It was also indicated that there was significant difference between average ability level of students and high ability level of students ( $p=.002$ ), likewise, significant difference existed between average ability level of students and low ability level ( $p=.003$ ). The result also showed that there was no significant difference between low ability level of students and high ability level of students ( $p=.977$ ) and it was also confirmed that there was significant difference between low ability level of students and average ability level of students ( $p=.003$ ).

## DISCUSSION OF FINDINGS

The result of this study indicated that, there was no significant difference in the pre-test mean scores of both experimental group and control group. It was also revealed that there was significant difference in the post-test mean scores of experimental group and control group after treatment had been applied. Experimental group outperformed control group. This finding is similar to the findings of Mark and Melisa (2009) on the effect of computer assisted pronunciation readings on learners' use of pausing, stress, intonation and overall comprehensibility where the group that received treatment excelled the control group. Gender is a psychological term, which describes behaviours and attributes expected of individual on the basis of being a male or a female (Uwameiye and Osunde, 2005). Therefore, the result regarding gender showed that

when audio-tutorial system was used to teach male and female, there is no significant difference in their performance. This finding is in line with work of Igweh, (2012), which examined the effectiveness of computer tutorial and drill on students' achievement in basic electronics. It was equally found that when audio-tutorial system was used to teach contrasting consonants sounds in English language, there is significant difference in the performance of students based on their ability levels and it favours low ability level students as well as high ability level students. This is consistent with the finding of Adeneye (2011) on effect of personalized computer – based instruction on students' achievement in solving two-step word problems in Mathematics. The finding reflected higher gains by low ability students than average ability students.

## CONCLUSION

This study examined the effect of audio-tutorial system on the teaching of students contrasting consonants sounds in English language. The results of the study confirmed that there is no difference in the pre-test mean scores of both experimental group and control group. There is significant difference in the post-test mean scores of experimental group and control group. There is no significant difference in the performance of male and female students when exposed to audio-tutorial system. There is significant difference in the mean scores of students when they are exposed to audio-tutorial system among students' ability levels (high, average and low). It shows that audio-tutorial system can be used to engage students in meaningful learning in Mathematics.

## RECOMMENDATIONS

Based on the findings, the following recommendations were made:

1. Government should equip the language laboratory with necessary multimedia

equipment to enable teachers and students integrate more innovative strategies like audio-tutorial system in the class.

2. School authorities should send teachers for training in the use of audio-tutorial system so that they can be encouraged to use them for instruction.
3. Both male and female students should be encouraged to use audio-tutorial system in the school for effective learning to take place.

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