



Effect of Phonemic Transcription-Based Strategy on Oral English Performance of ... Inusa, A., Et. al. (2026)

Effect of Phonemic Transcription-Based Strategy on Oral English Performance of L2 Learners among Senior Secondary Schools in Bida Education Zone of Niger State, Nigeria

INUSA, Auwalu¹

auwalyunus41@gmail.com, auwaluinusa@outlook.com

+2348026130700, +2348111176584

WAZIRI, Sulaiman Musa²

sulemwaz@gmail.com

+2348036388046

UBA, Halima Umar³

haleem.huu@gmail.com

+2348033361557

¹Language Arts Education Section, Department of Arts and Social Science Education, Ahmadu Bello University, Zaria

²Niger State Ministry of Education, Minna, Niger State, Nigeria

³Primary Education Department, Sa'adatu Rimi College of Education, Kano State, Nigeria

Abstract

This paper attempted studying the effect of phonemic transcription-based teaching strategy on the Oral English performance of senior secondary students in Niger State, Nigeria. Two (2) objectives of finding out the effect of phonemic transcription-based teaching strategy on the oral English performance the identified research subjects in terms of consonant articulation and examining the effect of phonemic transcription-based teaching strategy on the oral English performance in terms of vowels articulation guided the study. Two corresponding research questions and null hypothesis were formulated and tested in the study. The study used the pre-test-post-test quasi-experimental design. Two purposively sampled schools totaling 120 SSII students constituted the sample for the study based on the intact class principle. A modified instrument of 0.77 split-half reliability tagged "Modified Oral English Performance Test" (MOEPET) adapted by the researchers from the National Examination Council Test of Oral Question format was used for data collection. The data collected were analyzed statistically using the Statistical Package for Social Sciences (SPSS). At the descriptive level, the research questions were answered using mean and standard deviation; while at the inferential level, both hypotheses were tested using t-test at 0.5 level of significance. The findings from this study indicated that the students taught using PT-BTS exhibited improvement in such vowel sounds as: / e /, / ʌ /, / ei /, / eə /, / aʊ /, / ɪ / and distinctive articulation of the voiceless dental fricative consonant /θ/ from voiceless alveolar plosive /t/ with which it is often interchanged. They also displayed distinctive articulation of the voiceless alveolar fricative consonant /s/ in the environment of voiced alveolar fricative consonant /z/, in contrast to their counterparts in the control group. The study concluded that, phonemic transcription-based teaching strategy awakened and simplified learning of Oral English for the L2 learners exposed to it. The study recommended that teachers should drill their students on segmental phonemes to prepare them for the rigours of spoken communication using interesting and pedagogic enough strategies like the PTBTS.

Key words: English segmental phonemes, phonemic transcription, Teaching strategy, Spoken performance, Oral English

Introduction

The role of the English language in Nigeria requires its citizens to pay more attention to mastering the operational system of the language. English and many Nigerian languages have different phonological systems and students struggle with the system that does not exist in their native language. There are different teaching strategies used in learning Oral English in which phonemic transcription-based is one. Phonemic Transcription-based teaching strategy is a teaching strategy that involves representing spoken language in the written form, using phonetic symbols to aid learners in improving their pronunciation and speech skills. This is a system that visually represents the sounds of speech by using phonetic symbols to represent each individual sound (phoneme) in a language. For example, the word "cat" is transcribed as /kæt/ in the International Phonetic Alphabet (IPA), where each symbol corresponds to a specific sound. Studies into this area of linguistics have received tremendous attention recently and have increasingly demonstrated that pronunciation difficulties in English are seriously affecting learners' intelligibility or ability in countries where English is their second or subsequent language, (Hashmi, 2011).

Effect of Phonemic Transcription-Based Strategy on Oral English Performance of ... Inusa, A., Et. al. (2026)

In the face of the strong tie between the English language and the Nigerian education system, there is a wide gap in achieving expected results in past years from Nigerian secondary school students in terms of Oral English performance of the students. It is glaring that reading and writing skills to some extent record positive effects than Oral skills in accessing English language proficiency of Nigerian students. Problems are identified in years as revealed through researches ranging from teacher's attitude, lack of teaching materials, boredom or lack of willingness from the students, and inadequate knowledge of approaches and techniques of teaching Oral English among other factors. These problems results in students struggling to achieve standard Oral English performance which in turn hampers their oral communication, comprehension abilities and adversely affects their overall academic performance. The study effect of PT-BTS on Oral English performance hopes to contribute to the broader field of linguistic research and add to the body of knowledge on teaching segmental phonemes of Oral English. The study has the potential to help students improve their performance at phonemes level and overall oral communication skills in English. Therefore understanding and applying phonemic transcription, students can develop better awareness of English sounds and improve their academic performance.

Objectives of the Study

The objectives of this study are:

1. To find out the effect of PT-BTS on the Oral English performance of senior secondary students in Niger state in terms of consonant articulation.
2. To examine the effect of PT-BTS on the Oral English performance of senior secondary students in Niger state in terms of vowels articulation.

Research Questions

1. What is the effect of PT-BTS on the Oral English performance of senior secondary students in Niger state in the area of consonant articulation?
2. To what extent does PT-BTS affect the Oral English performance of senior secondary students in Niger state in the area of vowel articulation?

Null Hypotheses

H₀₁: There is no significant difference between the Oral English performance of students exposed to the PT-BTS and those not exposed to the strategy in the area of consonant articulation.

H₀₂: There is no significant difference between the Oral English performance of students exposed to the PT-BTS and those not exposed to the strategy in the area of vowel articulation.

Literature Review

Transcription refers to the process of visually representing spoken language sounds using phonetic symbols. According to Pelttari (2020), transcription is the underlying representation or the linear use of phonetic symbols that represent sounds that constitute a word. Transcription is broadly categorized into two mainly; phonemic (broad) and phonetic (narrow) transcription. Broad transcription is the systematic use of phonemic symbols to visually represent the sounds (phonemes) that constitute a word of a spoken language. It does not attempt to represent the extremely large number of speech variations (properties of spoken language). Rather, it records the phonemes that a speaker uses in the actual speech, as opposed to phonetic or narrow transcription which is detailed enough to capture the difference between allophones using more specific symbols, (Wells, 2006, Ladefoged & Johnson, 2011). This means that, phonemic it is a transcription type that documents only the sounds that are important to meaning. Phonetic (narrow) transcription, on the other side, is a transcription type that deals with all sound properties. It attempts to record every single phonological feature of an utterance, whether it is important to the meaning or not (Fromkin et al, 2011). This type captures more detailed phonetic characteristics, including restrained variations in sound production (aspirated from non-aspirated phonemes). For example, [p^hei] for the word “pay”. A growing number of studies have begun to examine the extent to which meaning-focused instruction can facilitate L2 pronunciation development, (Saito, 2012). A phoneme is referred to as the smallest unit that makes up a word. According to Wahyukti in Ma'lah (2016), phoneme is the smallest pronounceable and meaningful unit of sound. Jahara and Abdelrady (2021) opine that the sound system is a system of speech units that learners need to pronounce clearly and correctly. English speech or phonemes enhance intelligibility in phoneme articulation of English words. If the second language (L2) learners need to communicate successfully, then the need to master these sound systems will never be over-emphasized. Crystal as cited in Alshehri (2020) affirms that, according to traditional phonological theories, English has

Effect of Phonemic Transcription-Based Strategy on Oral English Performance of ... Inusa, A., Et. al. (2026)

about 42 phonemes which are classified into vowels and consonants according to their natural environments or positions in the oral cavity. Consonant sounds are typically sounds produce by either completely obstructing the flow of the pulmonic air or sounds from a preceding or following vowel, or by restricting the flow of sound or air so much that it becomes audible. It can also be considered voiced or voiceless. A voiced consonant is pronounced while the vocal cords are vibrating, whereas an unvoiced or voiceless consonant is pronounced while the vocal cords are motionless (Alshehri, 2020). The 24 consonants of the English language include: (p, b, t, d, k, g, f, v, θ, ð, s, z, ʃ, ʒ, h, ʧ, ʤ, m, n, ŋ, l, r, j, and w). The consonants sounds are further categorized according to places of articulation (points in the vocal tract where the flow of the air is fully interrupted, partially interrupted or there is zero interruption for the articulation of a particular consonant), manners of articulation (degree of obstruction of the airstream i.e partial or total obstruction) and state of the glottis (open glottis consonants without vibration are voiceless while those produces as it vibrates are voiced). Vowel sounds are another phoneme type of language that forms part of a word in everyday speech. Vowels are articulated when a voiced airstream is shaped using the tongue and the lips to modify the overall shapes of the mouth (Kelly, 2001 cited in Yoshida, 2019). The vowel is defined as a sound in which the air stream moves without any blocking or constricting during the production (Yoshida, 2019). There are 20 vowel sounds in English and further divided in to monophthongs and diphthongs (single sound vowels and pair or two sounds vowel, respectively). Monophthongs are single sound vowels. There are 5 long vowels: / i: /, / ɜ: /, / ɑ: /, / ɔ: / and / u: / and 7 short vowels: / ɪ /, / e /, / æ /, / ʌ /, / ə /, / ʊ / and / ʊ /. These 12 vowels revolve around the front, mid and back positions of the active articulator, the tongue. The front vowels are those in the formation in which the front of the tongue is raised in the direction of the hard palate. There are 4 front vowels: / i: /, / ɪ /, / e / and / æ /. Central vowels are those in the production of which the central part of the tongue is raised towards the hard palate. There are 3 central vowels: / ɜ: /, / ə / and / ʌ /. Back vowels are those in the production of which the back part of the tongue is raised towards the soft palate. There are 5 back vowels: / u: /, / ʊ /, / ɔ: /, / ɒ / and / ɑ: / There are primarily 2 types of vowel sounds based on the position of the lip: rounded and unrounded. The rounded vowels are those in the production of which the lips are pushed forward into the shape of a circle. There are 4 rounded vowels: / ɒ /, / ɔ: /, / ʊ / and / u: /. In the production of unrounded vowels, the position of the lips is not rounded. There are 8 unrounded vowels: / ɪ /, / i: /, / e /, / æ /, / ʌ /, / ə /, / ɜ: / and / ɑ: /, (Sharma, 2019). Diphthongs are the second group of English vowels. A diphthong is a sequence of two vowels that functions as a single sound. They are vowel sounds realized through the combination of two sets of vocalic characteristics, in a single, continuous articulatory movement, and within the boundaries of the same syllable (Adeniyi, 2017). There is no obstruction to the flow of air as it passes from the larynx to the lips when a diphthong is produced. They are divided into centering and closing or decentering diphthongs. Centering diphthongs move towards schwa, the center-most vowel; / iə /, / eə /, / uə / and closing diphthongs move toward a closer vowel; / ai /, / ɔi /, / au /, / ei /, / əu / (Skandera & Burleigh, 2005). However, vowels as English phonemes or sounds are constant properties of English words produced with a certain degree of vocal cord beat due to the absence of air attack or obstruction from the airstream mechanisms. Researches like the present one are needed to ascertain whether and the extent to which the use of a teaching strategy that is based on the phonemic type of transcription can help improve the spoken language performance of students are highly needed.

Methodology

This study used a pre-test and post-test quasi-experimental design. The Experimental Group (EG) was taught the articulation of sounds and exposed to a phonemic transcription-based teaching strategy as a treatment (X1), while the Control Group (CG) was taught the same articulation of sounds using the conventional method (XO). The population of the study comprised the senior secondary 2 students of Bida Education Zone in Niger State, Nigeria. The total sample size used for the study was two (2) intact classes of one hundred and twenty (120) SSII students. The schools are Ndayako Day Secondary School, Bida with 67 participants, and Government Model Science School, Bida with 53 participants. Also a purposive sampling technique was adopted to ensure participants chosen included both males and females who had similar backgrounds and experiences in Oral English performance. A modified instrument tagged “Modified Oral English Performance Test” (MOEPET) of 0.77 reliability adapted by the researchers from the National Examination Council Test of Oral Questions format was used for data collection. The data collected were analyzed statistically using the Statistical Package for Social Sciences (SPSS). At the descriptive level, the research questions were answered using mean and standard deviation; while at the inferential level, both hypotheses were tested using t-test at 0.5 level of significance.

Presentation of Results

The data related to the performance of Senior Secondary Students' in consonants and vowels when taught using phonemic transcription based teaching strategy are presented and discussed in this section. These are done, first, based on the research questions and, then, based on the null hypotheses.

Research Question 1

What is the effect of phonemic transcription-based teaching strategy on the oral English performance of senior secondary students in Niger state in the area of consonant articulation?

In answering the question above, below is Table 1 presents the mean and standard deviation on the effect of phonemic transcription-based teaching strategy on the oral English performance of senior secondary students in Niger state in the area of consonant articulation.

Table 1: Means and Standard Deviations on the Effect of Phonemic Transcription-Based Teaching Strategy on Oral English Performance of Senior Secondary Students in Niger State in the Area of Consonant Articulation

Group	N	Mean	SD	Mean Diff	SD. Error
Experimental	67	8.16	1.563	4.56	.191
Control	53	3.60	.840		.115
Total	120				

Table 1 shows that the mean performance scores on consonant articulation of students taught using the phonemic transcription-based teaching strategy (8.16) while the students taught using conventional method has the mean scores of (3.60). The mean difference is 4.56 which is in favor of the groups taught using phonemic transcription-based teaching strategy. This indicates that there was positive effect of phonemic transcription-based teaching strategy on the oral English performance of senior secondary students in Niger state in the area of consonant articulation.

Research Question 2

What is the effect of phonemic transcription-based teaching strategy on the oral English performance of senior secondary students in Niger state in the area of vowel articulation?

To answer the above question, below is Table 2 presents the means and Standard Deviation on the effect of phonemic transcription-based teaching strategy on the oral English performance of senior secondary students in Niger state in the area of vowel articulation.

Table 2: Means and Standard Deviations on the Effect of Phonemic Transcription-Based Teaching Strategy Oral English Performance of Senior Secondary Students in Niger State in the Area of Vowel Articulation

Group	N	Mean	SD	Mean Diff	SD. Error
Experimental	67	8.13	1.556	4.946	.190
Control	53	3.19	1.128		.155
Total	120				

Table 2 shows that the mean performance scores on vowel articulation of students taught using phonemic transcription-based teaching strategy is (8.13) while the students using conventional method has the mean scores of (3.19). The mean difference was 4.946 which is in favor of the groups taught using phonemic transcription-based teaching strategy. This indicated that there was positive effect of phonemic transcription-based teaching strategy on the oral English performance of senior secondary students in Niger state in the area of vowel articulation.

Null Hypothesis One:

There is no significant difference between the oral English performance of students exposed to the phonemic transcription-based teaching strategy and those not exposed to the strategy in the area of consonants articulation.

To test the hypothesis above, here is Table 3 containing data on the independent t-test scores on the differences between the Oral English of the experimental and control groups in the area of consonant articulation.

Table 3: Independent t-test Analysis on Difference between the Oral English Performance of Students Exposed to the Phonemic Transcription-Based Teaching Strategy and those not Exposed to the Strategy in the Area of Consonants Articulation

Effect of Phonemic Transcription-Based Strategy on Oral English Performance of ... Inusa, A., Et. al. (2026)

Group	N	Mean	SD	DF	t	t-crit.	P	Decision
Experimental	67	8.16	1.563	118	19.16	1.97	0.01	Rejected
Control	53	3.60	.840					

P<0.05 Alpha Level

Table 3 revealed that 19.16 was the calculated t-value with the P-value of 0.01 the p-value obtained is less than Alpha Level 0.05. The null hypothesis which states that there is no significant difference between the oral English performance of students exposed to the phonemic transcription-based teaching strategy and those not exposed to the strategy in the area of consonants articulation is hereby rejected. This shows that students taught oral English using phonemic transcription-based teaching strategy had significantly higher performance than their counterparts taught by conventional method in the area of consonants articulation.

Null Hypothesis Two:

There is no significant difference between the oral English performance of students exposed to the phonemic transcription-based teaching strategy and those not exposed to the strategy in the area of vowel articulation.

To test the hypothesis above, here is Table 4 containing data on the independent t-test scores on the differences between the Oral English of the experimental and control groups in the area of vowel articulation.

Table 4: Independent t-test Analysis on Difference between the Oral English Performance of Students Exposed to the Phonemic Transcription-Based Teaching Strategy and those not Exposed to the Strategy in the Area of Vowel Articulation

Group	N	Mean	SD	DF	t	t-crit.	P	Decision
Experimental	67	8.13	1.556	118	19.44	1.97	0.04	Rejected
Control	53	3.19	1.128					

P<0.05 Alpha Level

Table 4 shows that the calculated t-value obtained at 19.44 with the calculated P-value of 0.04 which is less than 0.05 significant Alpha level. The null hypothesis which states that there is no significant difference between the oral English performance of students exposed to the phonemic transcription-based teaching strategy and those not exposed to the strategy in the area of vowel articulation is hereby rejected. This shows that students taught oral English using phonemic transcription-based teaching strategy had significantly higher performance than their counterparts taught by conventional method in the area of vowel articulation.

Conclusion

In conclusion, Phonemic Transcription-Based Teaching Strategy awakens interest and simplifies learning oral English. The findings of the study showed that adequate phonemes articulation contributed immensely to the success of the study and revealed that, in order to effectively learn Oral English, there should be opportunity of involving all category of learners or students (introverts and extroverts) to participate in friendly and helpful ways and allow for the students' independence.

Recommendation

1. English language teachers in Senior Secondary Schools should adopt different strategies in teaching Oral English in order to make learning interesting and eliminate boredom attitude from the side of students particularly on the sounds articulation.
2. Also in the classroom, it is also very necessary that Oral English activities are made more interesting through interaction, participation and cooperation (group work).
3. Researches in this field of linguistics should be conducted on students' level below senior secondary students, so that they establish basic or introductory knowledge of phonemic sounds.

References

- Adeniyi, F. O. (2017). An Analysis of English Pronunciation Errors among Senior Secondary School Students in Kwara State Nigeria. *Asia Pacific Journal of Academic Research in Social Sciences*, 2.
- Alshehri, A. (2020). Perception of the English Phonotactics by Saudi English Majors: A Comparative study. *Arab World English Journal*, 11(4), 207-222. <https://doi.org/10.24093/awej/vol11no4.14>.
- Fromkin, V., Rodman, R., and Hyams, N. (2011). *An Introduction to Language*, Wardsworth; Cengage Learning.

Effect of Phonemic Transcription-Based Strategy on Oral English Performance of ... Inusa, A., Et. al. (2026)

Hashmi, M.A. (2011) Problems Faced by the Students of OPF in the Articulation of English Monophthongs (Unpublished Master's Thesis). National University of Modern Languages, Islamabad.

Ma'lah, L. (2016). Pronunciation's Problem. *Online Journal on L2 Education*, 28(11), 71-74.
<http://repository.ump.ac.id/1345/3/>

Saito, K. (2012) Effects of Instruction on L2 Pronunciation Development: A Synthesis of 15 Quasi-Experimental Intervention Studies, *TESOL Quarterly*, 46(4),842-854.

Sharma, L.R. (2019). Effectiveness of Teaching Vowel Sounds of English through the Exposition Strategy. *IOSR Journal of Research & Method in Education (IOSR-JRME)* e-ISSN: 2320–1959.p- ISSN: 2320–1940 Volume 9, Issue 2 Ser. III.

Skandera, P., and Burleigh, P. (2005). *A Manual of English Phonetics and Phonology*. Germany: Gunter Narr. Verlag Tubingen.