

<http://dx.doi.org/10.4314/gil.v11i1.3>

**VARIATION IN BOUNDARY CONSONANT DELETION IN ENGLISH
AMONG SELECTED MALE AND FEMALE UNDERGRADUATES
OF THE UNIVERSITY OF NIGERIA**

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Abstract

This study investigates variations in boundary /t/ consonant deletions in English among young educated Nigerians in connected speeches. Thirty students comprising of fifteen males and fifteen females in their third and final years, from the Department of English and Literary Studies at the University of Nigeria, Nigeria, participated in this study. Recordings were made of their t-deletions in selected phonetic tokens in connected speeches. All /t/ consonant deletions produced at word and morpheme boundaries in the given sentences for the study were identified and analysed perceptually. Labov's Variationist theory was adopted as the theoretical framework. The Statistical Package for Social Science (SPSS) software was used for the t-test (Independent Sample Test) analysis to determine the significant differences in the realisation of boundary /t/ consonants between the male and female genders. With the level of significance at 0.05, the /t/ deletion in the male participants in connected speeches was more significant than that of their female counterparts.

Keywords: Gender; variation; consonant deletion; variationist theory; gender influence; boundary consonants

1. Introduction

Since English was introduced in Nigeria, the educated elite in the society has closely attempted to learn and speak standardised British English. This has led to the rise of several kinds of literature on the phonology of English. Studies like Banjo (1971; 1996) and Jibril (1982) have proven that the attempt to achieve native-speaker perfection by a non-native speaker is merely an exercise that lacks basic justification since the variety of English

spoken in Nigeria cannot be said to be truly British. This seemingly unachievable target has triggered the rise of studies aimed at describing the regional varieties of spoken and written English, and has created room for the recognition and acceptance of a regional variation in the company of World Englishes.

Nigerian English, however, is a nativised variety of English spoken in Nigeria that has its own indexical markers that differentiate it from other World Englishes. Scholars like Adegbija (1989); Abdullahi-Idiagbon and Olaniyi (2011); Gut and Milde (2002); Udofot (1997), among numerous others have attempted to characterise this variety of English. Some other scholars have categorised Nigerian English into Standard and Non-Standard varieties; and along basilectal (non-standard), mesolectal (general, almost standard) and acrolectal (Standard Nigerian English) lines. Thus, acceptability of Nigerian English is no longer in question. Eka (2005: 53) sums up the issues validating the existence of Nigerian English when he states: “the questions of “correctness” or “wrongness” have vanished into the annals of history...“acceptability”, “intelligibility” and “communicativeness” are the binding forces for all Englishes and for their projected existence as variants of the English language.”

Several works of literature exist that study the different variations within Nigerian spoken English. According to Olaniyi (2016: 42), “scholars such as Jibril (1982); Eka (1985); Olaniyi (2011), among others have accorded ethnicity a prominent place in the identification of Nigerians especially when they communicate in the further tongue.” Also, “many Nigerians are able to identify a speaker’s ethnic group as soon as he speaks few words of English” (Bamgbose, 1971: 24 in Olaniyi, 2016: 42).

In Nigeria, the majority of the studies on phonetic variation have been largely limited to the level of education and ethnic identity (Udofot, 2002; Olaniyi, 2014). This is perhaps, connected to the interest of researchers in the validity of Labov’s model of language variation. However, Labov (1963; 1966; 1990; 1991) maintain that “gender and age are key factors of speech variation in any given speech community” (cf. Oladipupo & Akinjobi, 2015: 93).

Gender is a common term in many disciplines such as sociology, anthropology, law, and literary studies. Nordquist (2019) quoting Duranti (2009: 30-31) states that “extensive research on language, culture, and identity has sought to uncover ‘the logic of sex differences in languages...’”. This is seen in the study by Major (2004) who examines gender and stylistic differences in English native speakers and native speakers of Japanese and Spanish. While the results of the native speaker showed that significant differences exist based on gender and style, the overall results of the study revealed that gender

differences are acquired before stylistic differences (Major, 2004: 1). Also, Jahandar et al. (2012) investigate the impact gender has on pronunciation accuracy of advanced Iranian English as Foreign Language learners and the extent to which male and female learners outperform each other in their speech production. The result of this study showed that the female subjects performed more than the males in producing accurate consonants, but not the case during vowels production (Jahandar et al. 2012).

Other studies like that of Elliot (1995); Flege and Fletcher (1992), among others have reported the effect of how language learners' gender affects their phonetic realisation in consonant clusters and vowels. Conversely, this study takes a particular interest in examining the effect gender has in the realisation of final /t/ consonant clusters in connected speeches among young educated Nigerians.

Studies in linguistics and other related areas show that gender differentiation in linguistic behaviour is common. Many theories have argued both in agreement and disagreement of the existence of any valid differences in the language use of men and women. This has given rise to different models of gender differences, such as the Deficit Model, the Dominance Model, the Cultural Difference Model, the Social Construct model, and so on. Therefore, "gender is treated as the accomplishment and product of social interaction [and] the focus is on the way individuals 'do' or 'perform' their gender identity in interaction with others, and there is an emphasis on the dynamic aspect of interaction" (Holmes & Meyerhoff, 2003: 11).

1.1 Boundary Consonant Deletion

Boundary Consonant Deletion is a process by which "consonant clusters at word or morpheme boundaries are simplified in connected speech by deleting one or more of the clusters to maximise ease of articulation" (Oladipupo & Akinjobi, 2015: 96). Soneye and Oladunjoye (2015) observe that English as a Second Language (ESL) speakers in general, and in Nigeria in particular, resort to cluster reduction through several ways, as a means of simplification. At syllable level, Nigerian English, unlike the British English, does not allow a complex syllabic structure of up to three consonants at the onset (beginning) position and a maximum of four consonants at the coda (Soneye & Oladunjoye 2015: 258). Thus, when three or more consonants cluster in a syllable, ESL users in Nigerian tend to reduce or omit one consonant. This results in the articulation of for instance, 'next' as /nest/ instead of /nekst/, 'interact' as /intarat/ instead of /intərækt/, and 'six' as /sis/ instead of /sɪks/.

Suffice it to say that scholars like Weatherall (2002), Newman et al. (2008), Soneye and Oladunjoye (2015), among others, have attempted to establish the differences in language use influenced by gender. Yet, most of their works have been drawn basically from language of discourse. Also, while scholars like Oladipupo (2015) have worked on r-liaison and consonant cluster deletion in young Nigerian English speakers, Iyiola (2015) has studied auto-segmental features of consonant deletion among selected French learners of Ijebu undergraduates in the Southwest of Nigeria. Still, attention has not been paid to articulatory variation observable between different genders with respect to boundary consonant /t/ deletion in connected speeches in English using the third and final year students of the Department of English and Literary Studies of University of Nigeria as the population for the study. This is the gap this research intends to fill. Taking cognizance of the fact that the participants are young educated speakers of English in their third and final years of university education in the above department in Nigeria, it is expected that exposure to education will awaken their consciousness to the realisation of /t/, where necessary at word boundary. Therefore, meeting with the students at various locations on campus; classrooms, hostels, and relaxation centers helped them to render original speeches outside a formal setting. The t-test analysis enabled the researcher to describe the results obtained from recorded speeches which was perceptual.

1.2 Consonant Reduction in English

Consonant reduction/deletion is a phenomenon in English language which occurs mainly in connected speech. It is observed that words when pronounced in connected speeches differ from their articulation in isolation. Like other varieties of English, Nigerian English (NigE) has also received attention in the area of consonant reduction in connected speeches. For instance, Oladipupo and Akinjobi (2015) examine “the variable use of r-liaison and boundary consonant deletion processes of young Nigerian speakers of English” (Oladipupo & Akinjobi, 2015: 92). This study was made up of a population of 180 young NigE speakers who were evenly stratified into gender and class, and their data analysed with Analysis of Variance (ANOVA).

Soneye and Oladunjoye (2015) on the other hand, examine the reduction modes of consonant cluster in Educated Nigerian English. They drew their corpus from the International Corpus of English (ICE), Nigerian broadcasts and news, and from unscripted speeches of educated Nigerians (Soneye & Oladunjoye, 2015: 255). Their findings revealed the prevalence of a systematic deletion of triple clustered words in ENSE, and

conclude that coda cluster patterns in ENSE contribute significantly to the distinctiveness of Nigerian English within the purview of World Englishes.

Evans and Watson (2003) examined the “acoustic and articulatory features of reduced /t/ in three dialects of English: American English (AmE), Australian English (AuE) and Standard Southern British English (UKE)” (Evans & Watson, 2003: 917). The study revealed that AuE and AmE speakers produced /t/ in accented words with the greatest evidence of reduction while the UKE speakers showed very little effect of prosodic accents across the four conditions. This strongly suggests that consonant reduction as a result of prosodic accents is dialect specific.

In the light of Labovian sociolinguistic literature, much scholarly works have been carried out in relation to boundary consonant deletions. Scholars such as Jurafsky et al. (2001) have studied deletions in boundary consonants and found that the final /t/ or /d/ is deleted in high-probability content words because they are shorter in duration. Also, Raymond et al. (2006) study internal deletion of /t,d/ in spontaneous speech. While comparing the results of their study with the previous studies on word-final alveolar stop deletion, and other deletions at the word internal alveolar stop process they observed that word-internal alveolar stop deletion is not a unitary phenomenon, but are two different processes coming up at different points during production of speech (Raymond et al. 2006). Bybee et al. (2016) raise an argument based on the fact that “very frequent phrases and words undergo extreme reduction [as a result of] ongoing language use which turns out to provide evidence for the cognitive processes that shape phonology and grammar” (Bybee, 2016: 422). Therefore, “special reduction is one end of a continuum of interaction between the normal phonetic processes that occur in automated production and the frequency of use of words and phrases in particular contexts” (Bybee, 2016: 422).

Other scholars like Rhodes (1992), Smith et al. (2009), Roberts (1997), Guy (1992), and Fosler-Lussier & Morgan (1999), who have done extensive research in line with /t,d/ deletions in consonant clusters have also made valid findings which correlate with the above reviewed literatures. Thus, it is obvious that the issue of consonant cluster reduction/deletion in the English language has received some attention.

2. The Variationist Theory

Sociolinguistics studies on how language use is influenced by social factors (i.e., gender, age, class). William Labov, a prominent American sociolinguist pioneered this model of linguistic study which is referred to as Labovian or Variationist theory/sociolinguistics.

According to Gordon (2014), “the central doctrine of this field holds that variation is inherent to linguistic structure”. Also, in trying to point out the basic notion of the variationist model of linguistics, Gordon (2014) believes that the way a language is spoken and written across individuals as well as across situations encountered by the same individual has marked differences and such differences are important for a language to function. From Labov’s study on Martha’s Vineyard (Labov, 1963: 1972), it is possible to study linguistic change between speakers of different generations. Because Labov’s variationist theory is interested in studying linguistic change between speakers of different generations, it is, therefore, applied in this study to examine the linguistic change (boundary t-deletion in English) that occurs between the male and female third and final year students of the University of Nigeria. This makes the variationist theoretical model valid for this study.

3. Methodology

3.1 The Participants

The participants for this study were thirty (fifteen male and fifteen female) students of the Department of English and Literary Studies at the University of Nigeria, Nsukka, Nigeria. The choice of the participants was considered because, the nature of this research required examination of the variations in gender noticeable in boundary /t/ consonant deletion, and their degree of articulation or deletion in connected speeches among young educated Nigerians. It is important to state that the environment of the participants played a significant role in the collection of data for this study. While the choice of the participants (third and final years students) of the university under study represented the young educated speakers of English, according to Udofot (1997), the different locations of the students the data was collected made the students’ renditions more original because of the informal setting. Even the classroom renditions were before the lectures began.

3.2 The Data

This study used the vocal renditions of male and female students in their third and final years of study in the university. As a result, a stratified sampling technique was adopted to select the students. Each of the male and female participants was made to read the three sentences below:

- The girl next door said she can't swim.
- Amongst all the workers, just one person agreed that this is the worst job he ever had.
- I started friendship with an artist, he paints landscape, and for the past three years, he's worked hard and become successful. Now, his most famous painting is printed on postcards.

Because the research aimed to examine the variation in boundary /t/ consonant in connected speeches, attention was paid to the tokens from each of the sentences that contain boundary /t/consonants during renditions by the participants. The three sentences in all contain ten phonetic tokens (next, can't, amongst, just, that, worst, paints, past, most, postcards) with potential /t/ deletions. Renditions of the three sentences from each of the thirty participants were collected through the audio recording at various locations of the students: classrooms, relaxation areas, and hostels. In other words, each of the thirty participants (fifteen males, and fifteen females) read the three sentences containing ten phonetic tokens. Thus, three hundred (300) tokens were analysed in all. This formed the population for the study.

3.3 Analysis Procedure

Qualitative and quantitative research designs were adopted as they enabled adequate analyses of the data collected for this study. This study also adopted a perceptual method of analysis. The data from the target students which was audio-taped was played back, transcribed, and presented in tables and their articulations in potential /t/ deletion environments were identified. Variationist theory, which is of the view that variation is inherent to linguistic structure, was adopted as the theoretical framework. The Statistical Package for Social Science (SPSS) software was used for the t-test (Independent Sample Test) analysis to determine the significant differences in the realisation of /t/ boundary consonants between the male and female genders. For the Independent Sample t-test in SPSS, P value = 0.05.

4. Data Presentations and Discussion

Each of the thirty participants (fifteen males and fifteen females) read the three sentences that contained ten phonetic tokens where /t/ consonant occurred at a word boundary. Therefore, three hundred tokens were analysed in all. The perceptual presentation of the

variable phonetic realisations of the /t/ boundary consonant deletion among the participants is presented in Tables 1, 2, 3, 4, 5, and 6 below. The Number Analysis in Table 7 and the Group Statistics in Table 8 were used for the t-test analysis in Table 9 as presented below. For better understanding, the tables are discussed in pairs for each token to capture the gender differences in the realisation of the final /t/ consonant in connected speeches.

Sentence 1: The girl next door said she can't swim

Table 1: Female Renditions for Sentence 1

Voices	Next		Can't	
	/nekst/	/t/deletion for /nekst/	/ka:nt/	/t/ deletion for /ka:nt/
FV1	/nes/	deleted	/kan/	deleted
FV2	/neks/	deleted	/ka:nt/	not deleted
FV3	/nekst/	not deleted	/ka:nt/	not deleted
FV4	/nes/	deleted	/ka:nt/	not deleted
FV5	/nekst/	not deleted	/kan/	deleted
FV6	/nest/	not deleted	/kan/	deleted
FV7	/nes/	deleted	/kan/	deleted
FV8	/nekst/	not deleted	/kan/	deleted
FV9	/nez/	deleted	/kan/	deleted
FV10	/nekst/	not deleted	/kan/	deleted
FV11	/nes/	deleted	/ka:nt/	not deleted
FV12	/nest/	not deleted	/ka:nt/	not deleted
FV13	/nekst/	not deleted	/ka:nt/	not deleted
FV14	/nez/	deleted	/kan/	deleted
FV15	/nez/	deleted	/kan/	deleted

Note: FV= Female Voice

Table 2: Male Renditions for Sentence 1

Voices	Next		Can't	
	/nekst/	/t/deletion for /nekst/	/ka:nt/	/t/ deletion for /ka:nt/
MV1	/neks/	deleted	/kan/	deleted
MV2	/nes/	deleted	/kan/	deleted
MV3	/nest/	not deleted	/ka:nt/	not deleted
MV4	/nes/	deleted	/kan/	deleted
MV5	/nekst/	not deleted	/ka:nt/	not deleted
MV6	/neks/	deleted	/ka:nt/	not deleted

MV7	/nekst/	not deleted	/kan/	deleted
MV8	/nes/	deleted	/kan/	deleted
MV9	/nez/	deleted	/kan/	deleted
MV10	/nes/	deleted	/kan/	deleted
MV11	/nez/	deleted	/ka:nt/	not deleted
MV12	/nes/	deleted	/kan/	deleted
MV13	/nes/	deleted	/kan/	deleted
MV14	/nest/	not deleted	/ka:nt/	not deleted
MV15	/nes/	deleted	/kan/	deleted

Note: MV=Male Voice

Tables 1 and 2 above are representations of the female and male renditions of the phonetic tokens (*next* and *can't*) where [t] occurred at word boundary in a connected speech as seen in Sentence 1 (The girl next door said she can't swim). For the female participants in Table 1, FV3, FV5, FV6, FV8, FV10, FV12, and FV13 did not delete the boundary /t/ of 'next' /nekst/ in Sentence 1 while the remaining females did. Even though the realisation of /nekst/ by FV6 and FV12 was incorrect in Sentence 1 as they realised it as /nest/, the final /t/ was prominent during rendition which was the focus of the study. For their male counterparts in Table 2, MV3, MV5, MV7, and MV14 did not delete the boundary /t/ of 'next' /nekst/ in Sentence 1 while the remaining male participants deleted /t/. However, MV3 realised /nekst/ as /nest/. Importantly, the final /t/ was realised by MV3 which was the focus of the study. It is, therefore, obvious from the above Tables 1 and 2 that more females realised final /t/ in the connected speech. The t-test analysis will further prove the reliability of the result.

For 'can't' /ka:nt/ in Table 1 above, FV2, FV3, FV4, FV11, FV12, and FV13 realised the final /t/ in Sentence 1 while the remaining females deleted it. For the male participants in Table 2 above, MV3, MV5, MV6, MV11, and MV14 perfectly realised the final /t/ of 'can't' /ka:nt/ in Sentence 1 while the remaining males deleted it. Here also, more females realised the final /t/ in /ka:nt/ than the males.

Sentence 2: Amongst all the workers, just one person agreed that this is the worst job he ever had.

Table 3: Female Renditions for Sentence 2

Voices	Amongst		Just		That		Worst	
	/əmənst/	/t/ deletion in /əmənst/	/dʒʌst/	/t/ deletion in /dʒʌst/	/ðæt/	/t/ deletion in /ðæt /	/wɜ:st/	/t/ deletion in /wɜ:st/
FV1	/əmənst/	not deleted	/ dʒʌst/	not deleted	/da/	deleted	/wɜ:st/	not deleted
FV2	/ amons/	deleted	/dʒɔz/	deleted	/da/	deleted	/wɔs/	deleted
FV3	/əmənst/	not deleted	/dʒʌst /	not deleted	/da/	deleted	/wɜ:st/	not deleted
FV4	/amons/	deleted	/dʒɔs/	deleted	/da/	deleted	/wɔs/	deleted
FV5	/amons/	deleted	/dʒɔs/	deleted	/da/	deleted	/wɔs/	deleted
FV6	/ əmənst/	not deleted	/ dʒʌst/	not deleted	/da/	deleted	/wɜ:st/	not deleted
FV7	/amons/	deleted	/dʒɔs/	deleted	/da/	deleted	/wɔs/	deleted
FV8	/ əmənst/	not deleted	/dʒʌst/	not deleted	/da/	deleted	/wɜ:st/	not deleted
FV9	/ əmənst/	not deleted	/dʒʌst/	not deleted	/da/	deleted	/wɜ:st/	not deleted
FV10	/amons/	deleted	/dʒɔs/	deleted	/da/	deleted	/wɔs/	deleted
FV11	/amons/	deleted	/dʒɔs/	deleted	/da/	deleted	/wɔs/	deleted
FV12	/amons/	deleted	/dʒɔs/	deleted	/da/	deleted	/wɜ:st/	not deleted
FV13	/amons/	deleted	/dʒʌst/	not deleted	/da/	deleted	/wɔs/	deleted
FV14	/ əmənst/	not deleted	/dʒʌst/	not deleted	/da/	deleted	/wɔz/	deleted
FV15	/amons/	deleted	/dʒɔs/	deleted	/da/	deleted	/wɔz/	deleted

Table 4: Male Renditions for Sentence 2

Voices	Amongst		Just		That		Worst	
	/əmənst/	/t/ deletion in /əmənst/	/dʒʌst/	/t/ deletion in /dʒʌst/	/ðæt/	/t/ deletion in /ðæt /	/wɜ:st/	/t/ deletion in /wɜ:st /
MV1	/amons/	deleted	/dʒɔs/	deleted	/da:/	deleted	/wɔs/	deleted
MV2	/amons/	deleted	/dʒɔs/	deleted	/ðæt/	not deleted	/wɜ:st/	not deleted
MV3	/ əmənst/	not deleted	/dʒʌst/	not deleted	/da:/	deleted	/wɜ:st/	not deleted
MV4	/amonst/	not deleted	/dʒɔs/	deleted	/da:/	deleted	/wɜ:st/	not deleted
MV5	/amons/	deleted	/dʒɔs/	deleted	/da:/	deleted	/wɔs/	deleted
MV6	/əmənst/	not deleted	/dʒʌst/	not deleted	/da:/	deleted	/wɔs/	deleted
MV7	/amons/	deleted	/dʒɔs/	deleted	/da:/	deleted	/wɔs/	deleted
MV8	/amons/	deleted	/dʒɔs/	deleted	/da:/	deleted	/wɔs/	deleted

MV9	/amɒns/	deleted	/dʒɒs/	deleted	/dæt/	not deleted	/wɒs/	deleted
MV10	/amɒns/	deleted	/dʒɒs/	deleted	/da:/	deleted	/wɒs/	deleted
MV11	/əmənst/	not deleted	/dʒɒs/	deleted	/ðæt/	not deleted	/wɒs/	deleted
MV12	/amɒnst/	not deleted	/dʒʌst/	not deleted	/da:/	deleted	/wɜ:st/	not deleted
MV13	/amɒns/	deleted	/dʒʌst/	not deleted	/da:/	deleted	/wɜ:st/	not deleted
MV14	/amɒns/	deleted	/dʒɒs/	deleted	/da:/	deleted	/wɒs/	deleted
MV15	/amɒnst/	not deleted	/dʒʌst/	not deleted	/ðæt/	not deleted	/wɜ:st/	not deleted

In Tables 3 and 4 above, the male and female participants realised the final /t/ consonant clusters in the tokens in Sentence 2 in many different ways. The /t/ consonant cluster in ‘amongst’ /əmənst/ was realised as /əmənst, amons, amonst/ by both genders with the female participants achieving more accurate articulations than the male participants.

For the female participants in Table 3 above, FV1, FV3, FV6, FV8, FV9, and FV14 realised the final /t/ of ‘amongst’ /əmənst/ in Sentence 2 while the rest deleted it. For the male participants in Table 4 above, MV3, MV4, MV6, MV11, MV12, and MV15 did not delete the final /t/ of ‘amongst’ /əmənst/ in Sentence 2 while the remaining others deleted it. It is important to note that even though MV4, MV12, and MV15 realised the final /t/ of /əmənst/ in Sentence 2, they were heard to have articulated it inappropriately as /amonst/ instead of /əmənst/. Close observation from the Tables 3 and 4 above shows that more males deleted the /t/ in /əmənst/ than females.

For ‘just’ /dʒʌst/ in Sentence 2, FV1, FV3, FV6, FV8, FV9, FV13, and FV14 in Table 3 above did not delete the final /t/ while the remaining females deleted it. This shows that more females actually realised it. On the other hand, MV3, MV6, MV12, MV13, and MV15 in Table 4 above realised the final /t/ of ‘just’ /dʒʌst/ in Sentence 2 while the rest of the males deleted it. Also, for the token, ‘that’ /ðæt/ in Sentence 2, all the female participants in Table 3 above deleted the /t/ of it. However, for the male participants in Table 4 above, only MV2, and MV 15 realised it while the rest deleted it.

For ‘worst’ /wɜ:st/ in Sentence 2, FV1, FV3, FV6, FV8, FV9, and FV12 in Table 3 above realised the final /t/ while the others deleted it. For the male participants in Table 4 above, MV2, MV3, MV4, MV12, MV13, and MV15 did not delete the final /t/ of ‘worst’ /wɜ:st/ in Sentence 2 while the rest of the males deleted it.

Sentence 3: I started friendship with an artist, he paints a landscape and for the past three years he's worked hard and become successful, now his most famous painting is printed on postcards.

Table 5: Female Renditions for Sentence 3

Voices	Paints		Past		Most		Postcards	
	/peints/	/t/ deletion in /peints/	/pa:st/	/t/ deletion in /pa:st/	/məust/	/t/ deletion in /məust/	/pəust.ka:ds/	/t/ deletion in /pəust.ka:ds/
FV1	/peints/	not deleted	/pas/	deleted	/məust/	not deleted	/pəust.ka:ds/	not deleted
FV2	/peins/	deleted	/pas/	deleted	/məust/	not deleted	/pəus.ka:ds/	deleted
FV3	/peints/	not deleted	/pa:st/	not deleted	/məus/	deleted	/pəust.ka:ds/	not deleted
FV4	/peints/	not deleted	/pa:st/	not deleted	/məust/	not deleted	/pəust.ka:ds/	not deleted
FV5	/peins/	deleted	/pas/	deleted	/məust/	not deleted	/pəust.ka:ds/	not deleted
FV6	/peins/	deleted	/pa:st/	not deleted	/məus/	deleted	/pəus.ka:ds/	deleted
FV7	/peins/	deleted	/pa:st/	not deleted	/məust/	not deleted	/pəus.ka:ds/	deleted
FV8	/peins/	deleted	/pa:st/	not deleted	/məus/	deleted	/pəus.ka:ds/	deleted
FV9	/peints/	not deleted	/pas/	deleted	/məus/	deleted	/pəust.ka:ds/	not deleted
FV10	/peints/	not deleted	/pas/	deleted	/məus/	deleted	/pəus.ka:ds/	deleted
FV11	/peins/	deleted	/pas/	deleted	/məus/	deleted	/pəust.ka:ds/	not deleted
FV12	/peints/	not deleted	/pa:st/	not deleted	/məust/	not deleted	/pəust.ka:ds/	not deleted
FV13	/peints/	not deleted	/pa:st/	not deleted	/məust/	not deleted	/pəust.ka:ds/	not deleted
FV14	/peins/	deleted	/pas/	deleted	/məus/	deleted	/pəust.ka:ds/	not deleted
FV15	/peins/	deleted	/pas/	deleted	/məus/	deleted	/pəust.ka:ds/	not deleted

Table 6: Male Renditions for Sentence 3

Voices	Paints		Past		Most		Postcards	
	/peints/	/t/ deletion in /peints/	/pa:st/	/t/ deletion in / pa:st /	/məust/	/t/ deletion in /məust/	/pəust.ka:ds/	/t/ deletion in /pəust.ka:ds/
MV1	/peins/	deleted	/pa:s/	deleted	/məus/	deleted	/pəus.ka:ds/	deleted
MV2	/peints/	not deleted	/pa:s/	deleted	/məus/	deleted	/pəus.ka:ds/	deleted
MV3	/peins/	deleted	/pa:st/	not deleted	/məus/	deleted	/pəust.ka:ds/	not deleted
MV4	/peints/	not deleted	/pa:s/	deleted	/məus/	deleted	/pəust.ka:ds/	not deleted

MV5	/peins/	deleted	/pa:s/	deleted	/məus/	deleted	/pəust.ka:ds/	not deleted
MV6	/peins/	deleted	/pa:s/	deleted	/məus/	deleted	/pəus.ka:ds/	deleted
MV7	/peins/	deleted	/pa:s/	deleted	/məus/	deleted	/pəust.ka:ds/	not deleted
MV8	/peins/	deleted	/pa:s/	deleted	/məus/	deleted	/pəust.ka:ds/	not deleted
MV9	/peins/	deleted	/pa:s/	deleted	/məus/	deleted	/pəus.ka:ds/	deleted
MV10	/peints/	not deleted	/pa:s/	deleted	/məus/	deleted	/pəust.ka:ds/	not deleted
MV11	/peints/	not deleted	/pa:s/	deleted	/məus/	deleted	/pəus.ka:ds/	deleted
MV12	/peints/	not deleted	/pa:s/	deleted	/məus/	deleted	/pəus.ka:ds/	deleted
MV13	/peints/	not deleted	/pa:s/	deleted	/məus/	deleted	/pəust.ka:ds/	not deleted
MV14	/peints/	not deleted	/pa:s/	deleted	/məus/	deleted	/pəus.ka:ds/	deleted
MV15	/peints/	not deleted	/pa:s/	deleted	/məust/	not deleted	/pəust.ka:ds/	not deleted

Tables 5 and 6 above are the perceptual representations of the female and male renditions of the phonetic tokens: *paints*, *past*, *most*, and *postcards*, where [t] occurred at word boundary in a connected speech as seen in Sentence 3. ‘Paints’ /peints/ was realised as /peints, peins/ by both genders. However, the number of female participants that did not delete /t/ at word boundary was higher than that of the male participants. That is, FV1, FV3, FV4, FV9, FV10, FV12, and FV13 in Table 5 above did not delete the final /t/ of ‘paints’ /peints/ in Sentence 3 while the rest deleted it. For the male participants in Table 6 above, MV2, MV4, MV10, MV11, MV12, MV13, MV14, and MV 15 realised the final /t/ of ‘paints’ /peints/ in Sentence 3 while the remaining others deleted it.

The differences in realisation of /t/ boundary consonant were also seen in ‘past’ /pa:st/ as both genders realised it in variable ways as /pas, pa:st, pa:s/. While many of the female participants in Table 5: FV3, FV4, FV6, FV7, FV8, F12, and FV13 realised the boundary /t/ of ‘past’/pa:st/ in Sentence 3, all the male participants except MV3 in Table 6 deleted it. For ‘most’ /məust/ in Sentence 3, FV1, FV2, FV4, FV5, FV7, FV12, and FV13 in Table 5, did not delete the final /t/ while the remaining females deleted it. For the male participants in Table 6, only MV15 realised the final /t/ of /məust/ in Sentence 3. The final /t/ of ‘post’ in ‘postcards’ /pəust.ka:ds/, however, was realised by FV1, FV3, FV4, FV5, FV9, FV11, FV12, FV13, FV14, and FV15 in Sentence 3, while the remaining few others deleted it. For the male participants in Table 6, MV3, MV4, MV5, MV7, MV8, MV10, MV13, and MV15, did not delete the final /t/ of ‘post’ in ‘postcards’ /pəust.ka:ds/ in the connected speech in Sentence 3 while the remaining other males deleted it. To further ascertain the differences in gender in the realisation of the boundary /t/ consonant in

connected speeches (Sentences 1, 2, and 3), the t-test (Independent Sample Test) was used as the analytical tool.

Table 7 below shows the number analysis of Tables 1, 2, 3, 4, 5, and 6 above. Table 7 became necessary because it was used to build the Group Statistics in Table 8 which was further used for the t-test analysis in Table 9.

Table 7: Number Representation of the Phonetic Realisations of /t/ at Word Final in Sentences 1, 2, and 3

S/ No of Tokens	Words	Female (15)		Male (15)	
		N(√)	N(X)	N(√)	N(X)
1	next /nekst/	5	10	2	12
2	can't /ka:n't/	6	9	5	10
3	amongst /əmʌnst/	6	9	3	12
4	just /dʒʌst/	7	8	5	10
5	that /ðæt/	0	15	4	11
6	worst /wɜ:st/	6	9	6	6
7	paints /peints/	7	8	8	7
8	past /pa:st/	7	8	1	14
9	most /məʊst/	7	8	2	13
10	postcards /pəʊst.kɑ:ds/	10	5	8	7

N(√) = No that realised /t/ consonant at word final; N(X) = No that did not realise /t/ consonant at word final

Table 8: Group Statistics

	Gender	N	Mean	Std. Deviation	Std. Error Mean
Token 1	Female	15	1.67	.488	.126
	Male	15	1.87	.352	.091
Token 2	Female	15	1.60	.507	.131
	Male	15	1.67	.488	.126
Token 3	Female	15	1.60	.507	.131
	Male	15	1.80	.414	.107
Token 4	Female	15	1.53	.516	.133
	Male	15	1.67	.488	.126
Token 5	Female	15	2.00	.000	.000
	Male	15	1.73	.458	.118
Token 6	Female	15	1.60	.507	.131
	Male	15	1.60	.507	.131
Token 7	Female	15	1.53	.516	.133
	Male	15	1.47	.516	.133
Token 8	Female	15	1.53	.516	.133
	Male	15	1.93	.258	.067
Token 9	Female	15	1.53	.516	.133
	Male	15	1.87	.352	.091
Token 10	Female	15	1.33	.488	.126
	Male	15	1.47	.516	.133

Table 9: Independent Samples Test

	Levene's Test for Equality of Variances					t-test for Equality of Means				
	F	Sig.	t	df	Sig.(2-tailed)	Mean Diff.	Std. Error Diff.	95% Confidence Interval of the Difference		
								Lower	Upper	
/nekst/	equal variances assumed	7.338	.011	-1.288	28	.208	-.200	.155	-.518	.118
	equal variances not assumed			-1.288	25.261	.209	-.200	.155	-.520	.120
/ka:n't/	equal variances assumed	.516	.478	-.367	28	.716	-.067	.182	-.439	.306
	equal variances not assumed			-.367	27.959	.716	-.067	.182	-.439	.306

/əmʌnst/ equal variances assumed	5.333	.029	-1.183	28	.247	-.200	.169	-.546	.146
equal variances not assumed			-1.183	26.923	.247	-.200	.169	-.547	.147
/dʒʌst/ equal variances assumed	1.544	.224	-.727	28	.473	-.133	.183	-.509	.242
equal variances not assumed			-.727	27.911	.473	-.133	.183	-.509	.242
/ðæt/ equal variances assumed	50.286	.000	2.256	28	.032	.267	.118	.025	.509
equal variances not assumed			2.256	14.000	.041	.267	.118	.025	.520
/wɜ:st/ equal variances assumed	.000	1.000	.000	28	1.000	.000	.185	-.379	.379
equal variances not assumed			.000	28.000	1.000	.000	.185	-.379	.379
/peɪnts/ equal variances assumed	.000	1.000	.354	28	.726	.067	.189	-.320	.453
equal variances not assumed			.354	28.000	.726	.067	.189	-.320	.453
/pɑ:st/ equal variances assumed	40.786	.000	-2.683	28	.012	-.400	.149	-.705	-.095
equal variances not assumed			-2.683	20.588	.014	-.400	.149	-.710	-.090
/məʊst/ equal variances assumed	15.740	.000	-2.066	28	.048	-.333	.161	-.664	-.003
equal variances not assumed			-2.066	24.695	.049	-.333	.161	-.666	.000
/pəʊst. equal variances assumed	1.544	.224	-.727	28	.473	-.133	.183	-.509	.242
ka:ds/ equal variances not assumed			-.727	27.911	.473	-.133	.183	-.509	.242

The t-test analysis in Table 9 was done using the Statistical Package for Social Science (SPSS) software. With the level of significance at 0.05, it is concluded that the phonetic realisations that are equal to or less than 0.05 are significant while those that are more than 0.05 are not significant. For instance, ‘next’, ‘amongst’, ‘that’, ‘past’, and ‘must’ as presented in the Independent Sample Test showed a significant difference in their realisations by the male and female gender under study; while ‘can’t’, ‘just’, ‘worst’, ‘paint’, and ‘postcards’ showed no significant difference. Thus, the boundary /t/ consonant deleted in the connected speeches by the male participants under study is more significant than that of their female counterparts. In other words, the significant difference for that of the female participants is higher than that of males in the realisation of the boundary /t/ consonant in connected speeches. Therefore, the null hypothesis, which before the t-test analysis states that there is no difference between the two groups in the realisation of /t/ consonant, at word-final in connected speeches is hereby rejected. Thus, the researcher is 95% confident that the female genders among the young educated Nigerians selected for this study has a higher articulatory proficiency for /t/ consonants at word boundary than their male counterparts.

5. Conclusion

This study examined variation in gender in boundary /t/ consonant deletion in the spoken English of male and female students of the aforementioned university. In the process of this investigation, it has identified the phonological environments in which boundary consonant deletions thrive. From the analyses, therefore, it was discovered that the phoneme /t/ becomes deleted at word boundary when it occurs in certain word environments such as /d, s, ɔ, w, θ, dʒ, f, k/. The t-test analysis on a scale of 0.05 showed that the rate of deletion of the boundary /t/ consonant for the male participants was significantly higher than those of their female counterparts. Therefore, “elision is considered a phonetically motivating process that is characteristic of connected speech, in that it enhances the ease of articulation” (Hannisdal 2006: 63, in Oladipupo and Akinjobi 2015: 103). It was also observed that for the male and female participants, deletions resulted from cluster simplification in syllable codas to achieve gestural economy while at the syllable onsets, deletions were not visible. However, in isolation, this phoneme was distinctly realised. Thus, like Soneye and Oladunjoye (2015), it is obvious that coda clusters patterns in Educated Nigerian Spoken English (ENSE) contribute significantly to the distinctiveness of English use in Nigeria.

The result of this study which revealed that female participants were more distinct in the realisation of /t/ in word boundary than their male counterparts; and the number of female participants who realised the phoneme /t/ was significantly higher than those of the male respondents prove that variation in gender in the articulation of boundary consonant is eminent among young educated Nigerian speakers of English.

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