

**THAI NGUYEN UNIVERSITY
SCHOOL OF FOREIGN LANGUAGES**

BUI THI NGOAN

**THE EXPLICIT INSTRUCTION ABOUT ASPECTS OF
CONNECTED SPEECH TO THE FIRST YEAR ENGLISH
MAJOR STUDENTS' PERCEPTION AND PRODUCTION AT
SCHOOL OF FOREIGN LANGUAGES – THAI NGUYEN
UNIVERSITY**

**(Nghiên cứu việc hướng dẫn các khía cạnh liên ngữ đối với việc
nhận biết và sử dụng của sinh viên năm thứ nhất chuyên ngành
tiếng Anh tại Khoa Ngoại ngữ-Đại học Thái Nguyên)**

M.A. THESIS

Field: English Linguistics

Code: 8220201

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Supervisor: Dr. Bui Thi Huong Giang

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DECLARATION

I certify that the thesis entitled “*the explicit instruction about aspects of connected speech to the first year English major students’ perception and production at School of Foreign Languages-Thai Nguyen University*” is my own study in fulfillment of the requirement for the Degree of Master of Arts at School of Foreign languages, Thai Nguyen University.

Signature,

Researcher

Supervisor

Bui Thi Ngoan

Bui Thi Huong Giang

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ABSTRACT

Connected speech is one of the essential aspects of successful communication, which comprises effective auditory perception and speech production. Therefore, this study investigated the effects of aspects of CS training on ELF's perception and production. Forty first year students in English language class were the study subjects. Participants of the study were divided into two groups (experimental group and control group); each group consisted of 20 learners. They were required to do pre-tests before starting research treatment to examine if the participants of both groups were at the same level of CS awareness. Then, participants of experimental group were instructed explicitly aspects of CS in 7 weeks while the participants of control group continued their regularly classes. After 7 instruction weeks, both groups were asked to do post-tests. The results in pre-tests and post-tests were compared to be able to answer the research questions. The study results elicited there was a significant difference between experimental participants who have experienced explicit instruction of aspects of connected speech and control participants who have not. Both groups had a higher result in recognition and production post-tests; however, the experimental group outperformed control group. Hence, it can be concluded that CS instruction had positive effectiveness on ELF's recognition and production.

LIST OF ABBREVIATIONS

1.	C	Consonant
2.	C-C	Consonant to consonant
3.	C-V	Consonant to vowel
4.	CS	Connected speech
5.	ELF	English language freshmen
6.	f	Final
7.	i	Initial
8.	L2	Second language
9.	N	The number of participants
10.	n	The number of targets
11.	n₁	The number of recognised/produced targets
12.	p	The probability value
13.	S	Score
14.	SFL	School of Foreign languages
15.	TNU	Thai Nguyen University
16.	V	Vowel
17.	V-V	Vowel to vowel

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CHAPTER 1: INTRODUCTION

This chapter aims to expose the brief description of the paper including rationale, purpose, scope, significance, and organization.

1. Rationale

It cannot be denied that listening and speaking are two essential skills in learning a foreign language. Those skills are made up of such certain factors as vocabularies, grammatical rules, and pronunciation. Each aspect of knowledge plays its own roles contributing to the success of a conversation. Learners can make a sentence if they have words and grammar structures; however, they would never understand a discussion or a presentation if they don't have the proper pronunciation. According to Fangzhi (1998), he stated that whether someone's messages can be passed or not depend on his/her pronunciation. If someone cannot hear English well, he/she eventually is cut off from a conversation.

Pronunciation is considered as a very important foundation for listening and speaking skills. In fact, almost all natives speak continuously and rapidly and they tend to apply aspects of connected speech to keep their talk fluent and smooth. This is a reason why Vietnamese students often encounter a number of problems and difficulties in listening to English native speakers' utterances. They cannot catch English words correctly and often fail in communication. Therefore, teaching and learning aspects of connected speech play an integral part to improve students' speaking and listening ability.

According to Gilbert (2001) and Pennington et. al (1986), the suprasegmental features of spoken language play a critical part in the second language classroom. To students at School of Foreign Languages (SFL), therefore, learning connected speech is indispensable, especially for freshmen because almost all students are not approached phonology logically from primary school to high school. In terms of teaching, segmental phenomena are trained more than other aspects of pronunciation. Learners are only introduced English aspects of connected speech when they enroll at grade 12. Moreover, according to curriculum distribution of

English subject, English phonology along with grammar and writing are designed in “language focus” section which is often taught in a period of forty-five or fifty minutes. The maximum time for teaching pronunciation is around ten minutes which is too short to teach such a difficult area of phonology like connected speech. On the other side of the coin, most of English tests concentrate mainly on grammatical structures, reading and vocabularies. In fact, tests only contain a small part of phonology even national entrance examinations. Hence, students can neglect to learn English phonology to focus on other parts. Those lead to a fact that learners may not deliberate about pronunciation.

In spite of its importance, aspects of connected speech is an area that little research has been conducted. However, there were several authors researching this phenomenon (e.g: Brown & Hilferty, 2006; Celce-Murcia, Brinton, & Goodwin, 1996; Matsuzawa, 2006) and proved that connected speech instruction can help learners to comprehend easily rapid speech. Furthermore, applying connected speech features can make learners sound more comprehensible and natural with less marked foreign accent (Brown & Kondo-Brown, 2006a; Dauer & Browne, 1992). It can be seen obviously that connected speech is such an important part of phonology in order to build a natural and flowing speech. Thus, for those who are learning English, especially for English major students, they should pay more attention to this area.

For those reasons, the topic “*the explicit instruction about aspects of connected speech for the first year English major students’ perception and production at School of Foreign Languages-Thai Nguyen University*” was conducted with the hope of evaluating exactly English Language freshmen’s (ELF’s) awareness and production of aspects of connected speech.

2. Aims of the study

The aim of this study was to investigate the effectiveness of the aspects of connected speech instruction on the first year English-major students’ perception and production at School of Foreign Languages- Thai Nguyen University. It also

evaluated students' awareness of the aspects of connected speech and revised the necessary theory about connected speech.

3. Scope of the study

The study was conducted for 10 months in two English language classes at School of Foreign Languages – Thai Nguyen University. There are different aspects of connected speech. However, this research only focused on the two aspects of CS including linking and assimilation. Other aspects of knowledge consisting of grammar, vocabulary were skipped.

4. The significance of the study

The primary significance of this study was to find the differences between students who were experienced explicit instruction of aspects of connected speech in English and those who were not. The study also researched how students apply connected speech on their speaking, the difficulties which students had to face when they produced aspects of CS. From that point, the researcher might evaluate awareness ability, CS production ability of students and the effectiveness of aspects of CS instruction on ELF. In addition, the study would propose suitable strategies to help ELF have deeper knowledge and clearer understanding about the aspects of CS as well as provide some useful information for teachers to devise appropriate materials or suitable teaching methods.

5. Organization

The thesis includes five chapters.

Chapter 1, Introduction, introduces rationale, aims, scope and the significance of the research.

Chapter 2, Literature Review, addresses some major theories about English connected speech, the difficulties of Vietnamese students when learning English pronunciation, the significance of teaching aspects of connected speech, teaching procedure model and previous studies.

Chapter 3, Methodology, focuses on issues of methodology including research questions, subjects, data collection instruments, a procedure of data collection, teaching procedure and data analysis.

Chapter 4, Finding and Discussion, reported results of data analysis and discussion of major findings.

Chapter 5, Conclusion and Implications, this chapter provides the summary of major findings, implications, limitations, and suggestions for future studies.

CHAPTER 2: LITERATURE REVIEW

This chapter provides general theories of connected speech, the difficulties of Vietnamese learners when learning connected speech, the significance of teaching connected speech and previous studies.

1. Theory of connected speech

1.1. Definition of connected speech

“Connected speech” is such an important aspect of pronunciation that a lot of linguistic researchers spent time taking into consideration.

According to a study of Alameen (2014), he points out that connected speech is a significant aspect of pronunciation taking place in the continuous series of spoken language including elision, assimilation, linking, rhythm, and contraction. In 1987, Hieke explicated the reasons for connected speech that CS is “the changes which conventional word forms undergo due to the temporal and articulatory constraints upon spontaneous, casual speech” (p.41). Brown et al. (2006) mentions that “connected speech” makes up “a very real part of the spoken language and occurs in all levels of speech from casual to even very formal levels” (p.5). From those opinions, it can be seen that CS is a very natural phenomenon and often occur in a nonstop and casual speaking.

Peter Roach (2010) indicates that “in looking at connected speech, to bear in mind the difference between the ways humans speak and what would be found in ‘mechanical speech’”. It means CS takes place in real oral communication, but not mechanical speech. In fact, pronunciation machines or devices are advantageous to provide pronunciation of certain words. On the contrary, this technique is unusable because the quality of speech is so unnatural.

In general, given definitions indicated that CS is a popular phenomenon in spoken language; it takes place not only in casual speech but also formal speech. Producing aspects of CS always makes the talks more spontaneous and flowing. In terms of native speakers, their speeches are mostly speedy and continuous with linking, elision, assimilation or sound changes; therefore, their speeches are very fluent and natural. Besides, aspects of connected also have effective influences on

listening. According to Henrichsen’s (1984), the roles of teaching CS on learners’ listening comprehension were undeniable. The findings of this study were attested by Ito in 2006 which pointed out that the existence or absence of aspects of connected speech affected listeners’ perception. Baghrah (2014) revealed that teaching assimilation and linking brought benefits to listening skills. Therefore, having thorough insights into CS is extremely necessary.

1.2. Classification of connected speech

It cannot be denied that CS brings certain advantages to learners. CS may not a criterion to score a presentation or a mini-talk like grammar or vocabulary, but it helps learners speak English naturally and listen to English easily. It is believed that those are targets of any English learners; therefore, building a foundation about aspects of CS plays an important role.

Connected speech has divided into different aspects. Each researcher has its own standpoint. Brown et al. (2006) reveals that connected speech included reduced forms, elision, assimilation, reduction, and contraction. Alameen (2014) lists aspects of connected speech as presented in the following diagram.

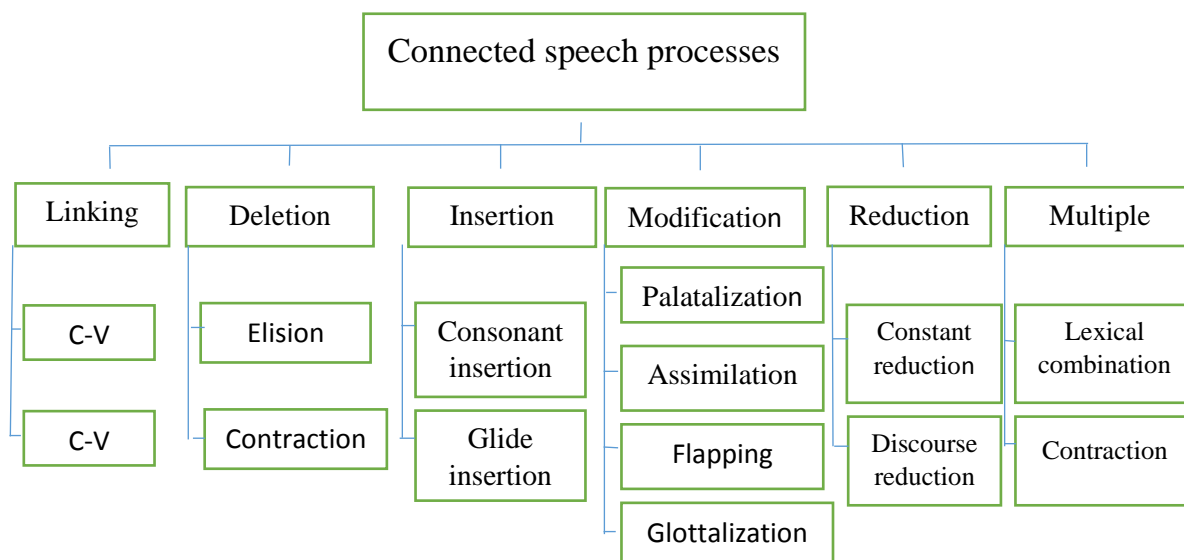


Figure 1: CS listed by Alameen (2014)

Peter Roach divides connected speech into four aspects those were rhythm, assimilation, elision and linking. Table 1 presents “aspects of connected speech” in English listed by Peter Roach (2010).

Table 1: The aspects of connected speech

Aspects of CS	Description	Example
Rhythm	Rhythm is the relatively equal between stressed syllables. It has often been claimed that English speech is rhythmical and that rhythm is detectable in the regular occurrence of stressed syllables.	‘Walk ‘down the ‘path to the ‘end of the ca’nal.
Assimilation	Assimilation is the process which takes place when one sound adapts itself to become similar to a neighboring sound in one or more aspects.	Good bye /gu:b bai/
Elision	Elision is the disappearance of sounds in speech. Under certain circumstances, sounds disappear.	Library /laibri:/
Linking	Linking is a process that the final sound of the preceding word links to the initial.	Face it /feisit/

Although there are numerous aspects of connected speech, the study only focused on two aspects of connected speech including assimilation and linking; therefore, this research didn’t discuss as well as give literature about the others. The information about linking and assimilation is presented below.

1.2.1. Linking

According to Brown et al (2006b), linking refers to what happens to sound at word boundaries when two words are joined by connecting the final sound of the preceding word links to the initial of the following word. Linking is categorized into three types including consonant to consonant (C-C linking), consonant to vowel (C-V linking), and vowel to vowel (V-V linking).

- ***Consonant to vowel linking***

Consonant to vowel linking seems to be the most popular. The C-V linking takes place when the final consonant of a word is followed by a vowel at the beginning of the next word. For example, the final consonant /k/ of the word “look” will bridge to the initial vowel /ʌ / of the word “up”, then “look up” /lʊ k ʌ p/ is pronounced as /lʊ kʌ p/. If a word ends with a /f/ sound, /f/ will be changed into voiced /v/ sound to link to the initial vowel of the following word. The word “laugh at” is pronounced like /læ vət/ instead of /læ fət/. Besides, we should also pay attention to /h/ elision in C-V linking. Glottal /h/ sound is often deleted in pronouns (him, her, his, he) or auxiliary verbs (have, has). Therefore, the final consonant is linked with the vowel following /h/. “He likes her” /laiks hə/ becomes /laik sə/, for instance. It is obviously that C-V linking only occurs when the final sound is pronounced fully. Whether learners speak as fast as they can, C-V linking cannot be taken place if the sending sound is dropped off.

- ***Consonant to consonant linking***

Consonant to consonant linking takes place when two same consonants meet at word boundaries and one slightly prolonged sound is made. “Big girl” /bɪ gɪ ɡɜ:l/ is taken as an example. In terms of two similar sounds the final sound of the first word is unreleased. For example, the sound /t/ “what do” is unreleased. In other words, the final sound of the first word is likely absent. Therefore, in case of lacking of ending sound, C-C linking still occurs in a rapid speech.

- ***Vowel to vowel linking***

Word ending in a high and mid-tense vowel links to a word starting with a vowel by an inserted /w /, /r /, or /j / sound is called vowel to vowel linking or “intrusive”. There are three types of intrusive which are intrusive /r/, intrusive /w/ and intrusive /j/. According to Peter Roach, the most familiar case is the use of linking /r/. The phoneme /r/ cannot occur in syllable-final position, but intrusive /r/ will happen when a word ends with /ɑ :/, /ɔ :/, /ɜ :/, /ə/, or any of the diphthongs that finish with a schwa including /eə/, /ɪ ə/ and /ʊ ə/ and the next syllable starts with a vowel sound (“here” /hɪ ə/ and “here are” /hɪ ə ə/). Intrusive /w/ happens

when a word ending in /u:/ or /ʊ/ followed by a word beginning with a vowel. A slight /w/ occurs to link two words together. For example, “go in” /gou ɪ n/ becomes /gou^w ɪ n/. When a word ends in /ɪ / or /i: / followed by a word beginning with a vowel, the slight /j/ sound will appear to connect two vowels together. “My” ends with /ɪ / and “aunt” begins with /a/ and then it is pronounced as /maɪ j a:nt/. This is a difficult type of linking because the speakers are used to original pronunciation the words. Therefore, learners get troubles in adding a consonant sound at the end of words.

1.2.2. Assimilation

According to Peter Roach (2010), assimilation occurs when a word ends with a single final consonant (which we will call C₁) and the second word starts with a single initial consonant (which we will call C₂). He also explains that assimilation is the process which takes place when one sound adapts itself to become similar to a neighboring sound in a rapid and casual speech. In other words, assimilation is the influence of one phoneme upon another neighboring phoneme, so that they become more alike.

He points out two main types of assimilation including regressive and progressive. If C₁ changes to become like C₂, the assimilation is called regressive (the first phoneme is affected by the one that comes after it); if C₂ changes to become like C₁, the assimilation is called progressive. Whether regressive or progressive, consonants are often changed in certain ways basing on three areas of consonants. The main differences between consonants are of three types which are assimilation of place, assimilation of manner, and assimilation of voicing.

- Assimilation of place of articulation

The alveolar sound /t,d,n/ is in front of bilabial sound /b,p,m/; the sounds /t,d,n/ will become bilabial sound /p,b,m/ in a rapid speech. The voiceless plosive alveolar sound /t/ becomes bilabial sound /p/ before a bilabial consonant /b/, /p/, /m/. “Right place” /raɪtpleɪs/ becomes /raɪppleɪs/ and “white bird /waɪt**b**ɜ:d/ becomes /waɪp**b**ɜ:d/. The voiced plosive alveolar sound /d/ places before one of bilabial

consonants /b/, /p/, /m/ causing the change into /b/ sound. “Good bye” /g**u**bbai/ and “should put” /ʃ**u**bput/ are taken as examples for this case. Finally, the voiced stop alveolar sound /n/ becomes voiced stop bilabial /m/ if it stands before a bilabial consonant /b/, /p/, /m/. “Ten boys” /t**e**n boiz/ changes into /t**e**mboiz/.

Before a velar consonant /k/, /g/; voiceless plosive alveolar /t/ sound will become velar sound /k/. The sound /t/ becomes /k/ in “white coat”. If alveolar consonant /d/ stands before velar consonant /k/, /g/, it will be changed to becomes /g/ sound (bad cold /b**æ**g kould/. Voiced stop alveolar /n/ sound will become /ŋ/ when it is before velar sound /k/ or /g/ (one cup /w**ʌ** ŋ k**ʌ** p/).

An alveolar sound stands before a post-alveolar sound will be changes into a post-alveolar sound. The voiceless fricative alveolar /s/ sound becomes post-alveolar /ʃ/; voiced fricative alveolar /z/ changes /ʒ / when /s/ is followed by / ʃ/ or /j/. For example, the sound /s/ in the word “nice” /nais/ changes into /ʃ / to link with the word “shoes” /ʃ u:/ easily. It can also be seen in “these sheep” /ð**i**ʒ ʃi:p/.

Another rule for assimilation is dentalization. /t/ will be changed into a dental plosive when it is before a dental consonant (e.g. get there / geððeə/).

- **Assimilation of manner of articulation**

Plosive /t,d/ will become /s/ if it appears before fricative /s/ sound and become /z/ followed /z/.

Example: That salad /ðæt 'sæləd/ => /ð**æ**s 'sæləd/

Good song /gʊ d sɔ ŋ/ => /gʊ **ss**ɔ ŋ/

That zoo /ðæt zu:/ => /ð**æ**zzu:/

Bad zone /bæd zoun/ => /b**æ**zzoun/

Plosive /t,d/ will be replaced by /n/ when /n/ is behind /t, d/.

Example: That night /ðæt **n**ait/ => /ð**æ**n **n**ait/

Good night /gʊ **d** nait/ => /gʊ **nn**ait/

According to Peter Roach, “in one particular case we find progressive assimilation of manner, when a word initial /ð/ follows a plosive or nasal at the end of preceding word; it is very common to find that the Ci becomes identical in manner to the Cf but with dental place of articulation”.

Example: In the /in ðə/ => /in nə/

- ***Assimilation of voicing***

Voicing is a feature of sound which is made by the impact of airstream on larynx. If the vocal cords vibrate, the voiced sounds are made. By contrast, the vocal folds do not vibrate, voiceless sounds are produced. The voicing of a sound, however, sometimes is affected by the neighboring sound.

If the final consonant is a voiced sound followed by a voiceless initial consonant; the final consonant will become devoiced as in “have to” /hævtu:/ => /hæf tu:/. If the final sound is voiceless and the initial is voiced, the final consonant would become voiced. For example, “black dog” /blæk dɔ g/ is pronounced as /blæg dɔ g/.

A closely related topic is progressive assimilation of voice with the suffix “s” (third person singular suffix, noun plural suffix or possessive suffix). “s” will be pronounced as /s/ if the preceding consonant is fortis (voiceless) and as /z/ if the preceding consonant is lenis (voiced) (Peter Roach 2009, p.113).

Example:

“Cats” /kæts/	“Runs” /rʌ nz/	“Dogs” /dɔ gz/
“Pats” /pæts/	“Jumps” /dʒ ʌ mps/	“Pams” /pæmz/

In general, assimilation and linking are popular phenomenon in English that native speakers apply frequently in their conversations. It makes their speeches more smooth and natural. For those who study English as the second language, these are difficult aspects of connected speech, especially for Vietnamese learners who are familiar with isolating language. However, it can be extremely believed that explicit instructions about theory as well as rules along with a number of exercises will bring certain effectiveness for learners.

In terms of the first year English major students at School of Foreign languages, being good at assimilation as well as linking is a foundation for them to widen knowledge about phonology as well as improve their study during the rest time at

University. Listening skills, speaking skills and major subjects will be supported a lot by these important aspects of connected speech.

2. The importance of connected speech in English language learning

“Reduced forms”, “sandhi forms” or “weak forms” are terms that several researchers used to refer to the phonological phenomenon called connected speech. Connected speech often occurs in continuous speech and normal daily conversation. In speaking, the boundaries between words are not clear. Sounds can be clipped, linked or changed in different ways. This is one of the reasons why learners find spoken discourse more difficult to understand than written discourse. Learners may know all the words, just not recognize them in the stream of speech.

Vietnamese students are used to slow speech; therefore, they may get shocked when they find themselves in a situation in which native speakers are talking to each other. Moreover, non-native speakers are seldom able to anticipate which lexical item may or may not appear in a specific circumstance. They tend to depend nearly exclusively on the sounds which they listen. As the result, they get troubles in understanding what is said.

To solve this problem, teaching aspects of connected speech is indispensable. Connected speech is the key to gain a smooth and flowing speech as well as listen more effectively. Many authors investigated the influence of connected speech on EFL and concluded that aspects of connected speech have positive effects on learners’ results. D. Brown and K. Brown (2007, p. 5) also points out some advantages of connected speech including:

- Connected speech is a very real part of languages.
- Students need to learn more than the traditional grammar, vocabulary, and pronunciation that many language teachers present; connected speech is an important part they need to learn.
- Connected speech is not just lazy, sloppy, careless, or slovenly language; rather, they occur in all levels of speech, including the most formal manners of speaking.

For English major students, the application of aspects of connected speech is even more important. Having knowledge of CS not only helps students understand exactly how phonetic phenomena occur but also enables learners to form a natural and fluent speech which is the goal of any learner and any training organization. Therefore, instructing aspects of connected speech is the first step to help students improve their ability in speaking and listening.

3. The difficulties of studying connected speech

Being good at a new language gives people many opportunities and benefits in life. However, learning a second language always is a challenge for learners. It is in not only spelling but also pronunciation and other aspects of knowledge. As Vietnamese students, learning English as a second language also brings students troubles especially in English pronunciation.

Kenworthy (1987) identified factors affecting pronunciation learning and indicated that the learners' first language had strong influences on L2 pronunciation. Therefore, the differences between the phonetic of English and Vietnamese are one of the reasons affecting learners' pronunciation learning. According to Giap (1997), English is an inflectional language and Vietnamese is an isolating language; therefore, the way to pronounce in Vietnamese is completely different from English. English syllables are connected together, but Vietnamese syllables are pronounced separately. Hence, aspects of connected speech appear frequently in English but not in Vietnamese. In fact, Vietnamese people always apply the same ways of speaking in Vietnamese into English; therefore, students find it hard to produce supra-segmental phenomenon such as linking and assimilation in their talks.

Besides, teaching English in Vietnam concentrates much on grammar and vocabulary while the foundation for learning English effectively lies in the "pronunciation". This is a reason why students may have a wide range of vocabularies, good structures, but they cannot communicate and speak English well. They still make unnecessary mistakes including putting stress inexactly, lack of

ending sounds causing difficulties in applying advanced pronunciation. Assimilation and linking often occur in the boundaries of words; therefore, if final sounds are dropped off, aspects of connected speech cannot be produced.

In addition, Vietnamese students are not trained supra-segmental systematically. Both teachers and students only focus mainly on reading and writing skills in order to pass the examinations; therefore, students have less chance to speak English and apply aspects of connected speech into real conversation effectively. Therefore, the speeches became choppy and unnatural.

From difficulties listed, it can be determined that teaching English connected speech is absolutely necessary for English learners in general and for ELF-TNU in particular. Raising student's awareness of connected speech will be the first step towards helping the learners to speak more naturally and enabling students to get a better understanding about English language.

4. Adapted framework from Khaghaninezhad and Nunan in teaching aspects of connected speech

Although aspects of connected speech play an important role in speaking and learning, there are not many studies about this area. The teaching models are not diverse to choose from and compare. Therefore, the teaching procedure of the present study was combined between Khaghaninezhad's teaching model and approaches of Nunan.

Among a few previous studies, Khaghaninezhad's teaching model (2014) was selected as the most suitable for the current research. The research about the effect of reduced forms instruction on learners' listening and speaking abilities was conducted and achieved positive outcomes. That was the reason why the present research followed its teaching model. In Khaghaninezhad's study, a two-hour lesson was planned including 6 steps including pre-listening, listening comprehension checking, fill in the blank, raising students' awareness, perception exercises and production exercises. These stages were appropriate to the present study which mainly focused on raising students' perception and production via explicit

instructions. The current study followed all listed steps and collaborated with other approaches in teaching listening, speaking and pronunciation in order to obtain certain effectiveness after treatment.

The study was combined with Nunan's teaching approaches to be able to achieve good results after investigation. According to the short time of the study and the current situations, the researcher only applied some approaches in teaching listening and pronunciation during the teaching time. An inductive approach was used in teaching rules of connected speech. Dictogloss and bottom-up processing were used in teaching listening. Finally, repetition was used in teaching pronunciation. Those approaches contributed to the quality of teaching aspects of connected speech into listening and producing CS.

All in all, to raise the effectiveness of CS instruction, bottom-up process was added in step 1 to help students listen effectively in step 2. An inductive approach and repetition were combined with step 4 with a hope of raising students' perception and production ability. Dictation was an important part which was collaborated with listening task to check students' CS recognition. Hopefully, these combination will be advantageous for the study.

5. Previous studies on aspects of connected speech

There have been several studies carried out by some scientists worldwide about the effects of connected speech on L2 perception and production.

The study "Investigating the Effect of Reduced Forms Instruction on EFL Learners' Listening and Speaking Abilities" was conducted by Mohammad Saber Khaghaninezhad and Ghasem Jafarzadeh in 2013 to investigate the effects of reduced forms training on Iranian EFL learners' speaking and listening skills. The participants of the study were fifty male learners who were in different ages from 16 to 37. The participants randomly assigned as the control and experimental groups. Recognition and production tests were design to see the effects of instructing reduced forms on learners' listening and speaking abilities. In terms of recognition test, fill-in-blank dictation test was designed to check the recognition ability of

participants. To examine the production ability, students were asked to make conversation about a topic which they were interested in. The study results elicited that there was a significant difference between experimental participants who had experienced instruction of reduced forms and control participants who had not. Both groups had a higher result in listening comprehension, recognition and production post-tests; however, the experimental group outperformed control group.

Baghrahi (2014) did a research on Iranian learners and explored the effects of connected speech training on listening skills. He believed that there must be something beyond vocabulary and grammar that interferes with L2 students' listening comprehension. Therefore, the study “the effects of assimilation and elision teaching on listening comprehension of EFL Junior high school students” was conducted. The participant of the study was 42 Junior high school students who were assigned to the experimental and control group. Researcher also used pre-tests and post-tests to evaluate the effects of instructing linking and assimilation. Author used two tests to evaluate effects of teaching assimilation on listening skills including Cambridge Preliminary English Test (PET) and connected speech forms Dictation Test. The findings showed that learners were more confident when listen to English. Of course, their listening comprehension ability was improved.

A research of Alameen (2014) also explored “the effects of linking instruction on non-native speakers’ connected speech perception and production”. The research investigated 45 participants with 15 students in each of the two experimental groups and a control group. The study used dictation test for perception test and reading a text for production test. The study results revealed that linking instructions had a positive influence on students’ linking perception and production. This study seemed to be the newest study researching the effects of connected speech on learners’ recognition and application.

As can be seen from the studies above, researchers conducted studies to investigate the effects of connected speech instruction on learners’ perception and production. Authors investigated in a small scope from 40 to 50 participants. The present study also focused on 40 English learners who were the first year English

major students at Thai Nguyen University. Their age ranged from 18 to 20 years old which was totally different from previous study. Baghrah (2014) investigated Junior high school students while the participants of the study “Investigating the Effect of Reduced Forms Instruction on EFL Learners' Listening and Speaking Abilities” were so diverse with four different ranges of age (16-20, 20-25, 25-30 and 30-37) and Alameen’s study investigated both undergraduates and graduate student. These studies might consider whether there was any difference about the effectiveness of teaching CS for learners at different age or not. However, the present study was only conducted on freshmen who were at the same age and the same level.

In terms of methodology, previous study used experimental method with 3 steps which are pre-tests, treatment and post-tests. To examine the effect of teaching explicitly aspects of connected speech on the first year students at School of Foreign Languages-TNU, the current research followed these similar stages.

Previous studies considered the effects of CS instruction on listening skills more than speaking skills. All of studies applied dictation test to check students’ perception. The present research used two small tests to evaluate learners’ perception. Fill-in-blank dictation test was used to assess the ability of realizing CS through listening. A listing test was utilized to see if student could recognize CS in a text. If students have thorough insights into pronunciation as well as rules of CS, they will completely do this test well. Regarding production test, while previous studies only used reading test or free speaking test, the current study used both to assess how students produce CS in a free talk and in a given text.

Although there were certain similarities and differences from the present study, the previous studies brought positive findings. Hopefully, the current study would benefit from these studies and achieve good results.

CHAPTER 3: METHODOLOGY

This chapter mainly reveals the issues of methodology in the study including research questions, subjects, and data collection instruments, data collection procedures, teaching procedure and data analysis. Each of these components was described in details.

1. Research questions

The purpose of this study was to investigate the effectiveness of linking and assimilation instruction on ELF's perception and production. This study aimed at answering the following questions:

1. What are the differences between control group and experimental group?
2. Does instructing explicitly assimilation and linking increase ELF's ability to recognize them in listening?
3. Does instructing explicitly assimilation and linking enable ELF to produce them in speaking?

2. Participants

Participants of the study were 40 students of two English language classes at School of Foreign Languages, Thai Nguyen University. There were 38 female students and 2 male students whose age ranged from 18 to 20 years old. The majority of them were 18, whereas five of them were 19 and one student was 20.

Almost all participants come from mountainous area who learned English for seven to nine years. They were majoring in English language as the foreign language at University. They already learnt about pronunciation in the first semester. The experimental teaching was carried out in the second semester at university when student had fundamental foundation about phonology in order to achieve positive results in instructing aspects of connected speech. The participants were divided into two groups as a control group and an experimental group. Each group included 20 students.

3. Data collection instruments

To answer all the research questions, pre-tests and post-tests were designed to evaluate students' recognition and production.

The recognition test was used to examine how students understood the theory and realized linking and assimilation. This test consisted of two small parts which were listening test and listing test. First of all, participants were given a fill-in-the-blank task which students had to listen to recordings and fill missing words or statements in the blanks. All missing information was manifest examples of assimilation and linking. There were 25 linking phenomena (23 C-V linkings, 1 C-C linking and 1 V-V linking) and 13 assimilation phenomena (5 place of articulation assimilations, 4 manner of articulation assimilations, 4 voicing assimilations). Second of all, students were given a short text, and then they were asked to list the number of linking and assimilation phenomena that they found in the text. The score of these tests was based on the number of assimilation and linking recognized. That data would help the researcher evaluate the participants' recognition ability about two aspects of connected speech.

In terms of the production tests, the research oriented in students' reading text and speaking. The production tests aimed at evaluating participants' ability to produce aspects of connected speech in their daily, informal dialogues. Participants were required to read out a text in level two (A2) which was taught in grade 12. The number of targets words was presented in table 2.

Table 2: The number of phenomena in listing and reading test

Assimilation			Linking		
Assimilation of manner	Assimilation of place	Assimilation of voicing	C-C	C-V	V-V
1	25	24	6	44	4

In terms of speaking test, the students were asked to make a conversation with their partners. Each pair was given 5 minutes for preparation before performing. All students' speeches were recorded and transcribed. All phenomena in their talk as

well as produced phenomena were aggregated. The number of performed phenomena determined the score of participants.

4. Procedure of data collection

A quasi-experimental design was used for the present study. The research followed these following steps.



First of all, students of both groups were given pre-tests for checking their linking and assimilation perception and production ability. The pre-test was used to see whether all students of both groups were homogeneous in their knowledge of the items before starting research or not.

After taking pre-test, learners in experimental group were instructed explicitly aspects of connected speech. Whereas, students in control group were still followed their regular instruction on the class.

Finally, after treatment, students of control and experimental groups were given two post-tests in order to compare the range of improvement between them. The post-tests were the same format, level and language to the pre-tests to be able to evaluate accurately the differences between both groups in pre-tests and post-tests.

This study concentrated on aspects of connected speech; therefore other areas such as grammar or vocabulary were skipped. The scoring of the test based on the number of assimilation and linking recognized and produced by students. Then, the result will be collected and analyzed.

5. Teaching procedure

The students of experimental group were introduced explicitly about assimilation and linking during every 7 weeks. The instruction of two aspects of connected speech focused on the sound changes when using the aspects of CS, providing the theory involved, introducing and explaining the rules of assimilation and linking to help students understand perfectly the process of linking and assimilation. All information as well as exercises were referred from Hewings

(2007- English Pronunciation in Use Advanced Book with Answers), Hancock (2012- English Pronunciation in Use Intermediate Book with Answers) and Peter Roach (2010-English Phonetics and Phonology). These books provided knowledge logically and obviously which enabled students to acquire CS rules easily.

The course was met once a week in one period. Each lesson was designed in 2 periods. Each period lasted for 50 minutes. The procedure of teaching was adapted from Khaghaninezhad (2014) and combined with Nunan's approaches. Teaching stages and teaching methodology were suitable for the current research. Each lesson was developed through these following six steps.

Step 1: Pre-listening

Step 2: Listening comprehension checking

Step 3: Fill in the blank and dictation tasks

Step 4: Raising students' awareness

Step 5: Perception exercises

Step 6: Production exercises

The description of each step was shown below:

Step 1: Pre-listening (10 minutes)

Bottom-up listening approach was used to help students listen effectively when faced with unfamiliar vocabularies and structures. New vocabularies as well as new phrases were translated and explicated before listening. Teacher also provided students with background information of the recording to increase learners' comprehension. Guided questions or pictures were provided to focus students' attention on the main ideas of the recording. The goal of this stage was to make learners familiar with the topic they are going to listen.

Step 2: Listening comprehension checking (10 minutes)

Learners were presented with a recording. The recording was played twice. Next, students were asked to answer a few listening comprehension questions. The aim was to check their comprehension of the content they heard. This step also played an important role which made students realize what difficulties related to

connected speech they encountered in listening are and understand the importance of CS for language acquisition.

Step 3: Fill in the blank and dictation (20 minutes)

A fill-in-blank listening task was designed and distributed to each student. Learners listened to a few short texts and sentences which contained different types of connected speech. Learners were asked to fill in the blanks of their answer sheets with the complete forms of the aspects of connected speech they heard.

Along with fill-in-the blank task, a dictation task was drawn up which is a bit more difficult than fill-in-blank task. Before listening students were introduced new words related to the topic. The text was copied and distributed to students to compare with their notes before they were asked to produce the text. It is believed that through this active learner involvement, students come to confront their own strengths and weaknesses in English language use. In so doing, they find out what they don't know, then they find out what they need to know and this is the process by which they improve their language skills (Wajnryb 1986: 6).

Step 4: Raising students' awareness of connected speech (20 minutes)

After getting used to aspects of connected speech through listening, learners were taught the connected speech by focusing on the sound changes and the rules which they follow. Teacher gave examples and asked students to guess the rules before providing theory. This approach helps students not only remember better but also realize aspects of connected speech in listening.

To guarantee that students can produce aspects of connected speech right after instruction, imitation was used to improve students' production ability. In this stage, learners were asked to listen to the recording to see how the sound changes, then imitate and repeat target words.

Step 5: Connected speech perception exercises (15 minutes)

Learners were asked to write a few examples of connected speech which they were taught in the lesson. Then, students were also given a text to list CS

phenomena that they were introduced in the session. The aim of this step was to help learners to learn and internalize aspects of connected speech. So they could use and understand better the CS of the language they heard.

Step 6: Connected speech production exercises (20 minutes)

Practice is an essential step that helps students apply the theory into real communication. The goal of this step was for the students to be able to apply the rules into their own free speech. Gilner (2006) appreciated the importance of communication tasks and considered as the final step which skills and knowledge become internalized as the learned patterns are integrated into spontaneous production” (p.95). In this study, students were asked to read word lists and discuss on a given topic using the previously taught “reduced forms” of English. Students can work in pair followed teachers’ requirements. The students’ production was carefully controlled by the teacher; subsequently, the students were given feedback on their pronunciation.

At the end of a lesson, students were given homework which is an indispensable part in teaching and learning any fields. Homework is "any task assigned to students by school teachers that is meant to be carried out during nonschool hours" (Cooper (1989)). Giving homework is considered as an effective way to contribute to success of students. According to Paschal et al. (2001), the amount of home stimulation students receive can affect their achievement in school by as much as 50%. The more homework they do, the easier and faster they remember the knowledge.

In this study, students of experimental group were given several homework tasks after each lesson including theoretical and practical exercises with the hope that students are able to retain knowledge and produce aspects of CS effectively. In addition to listening and recognition test, students were asked to record their homework to improve production ability. Gilner argues that “the use of student recordings is most suitable since it externalizes speech and provides a means of subsequent analysis and feedback” (2006, p.96). Actually, this kind of homework

brings advantages to both teachers and students. Teachers can check students' production through recordings and have feasible recommendations. In terms of students, the use of a device such as a smartphone or a computer to record what the learner says enables them to compare to a recording of a native speaker and then playback and see whether they make mistakes or not.

6. Data analysis

All data analyses were performed with SPSS for windows ver. 22.0 (Armonk, NY: IBM Corp) and Microsoft Office Excel. Independent-Samples and Paired-Samples t-tests were used. A p-value < 0.05 was considered statistically significant. Besides, Microsoft Excel was also employed to compute the percentage of recognised and produced targets.

This study assessed the effectiveness of explicit instructions on connected speech; therefore, to examine if teaching explicitly was effective or not, data were analyzed basing on four stages.

To begin with, the number of target words that students recognized and produced in pre-tests and post tests were counted. The students' score depended on the number of performed target words. To compare the mean score between two groups, realized words were counted and calculated on a scale of 10 through the following formula:

$$S = \frac{10}{n} n_1$$

S: Score

n: The total number of targets

n₁ : The number of recognized/produced targets

Then, the average score of assimilation and linking in each test was found and used to compute mean scores using SPSS.

In the next step, two Independent-samples t-tests were conducted to compare the mean scores of production and recognition ability between the control and experimental group.

Afterwards, Paired-samples t-tests were performed to compare the pre-test and post-test mean scores in each group. Independent-samples t-tests were utilized to compare the different between the pre-test and post-test means of each group.

Finally, the post-test mean of control and experimental group was compared using the Independent-samples t-test. This step was very essential which would prove the effectiveness of explicit instructions on linking and assimilation for students.

CHAPTER 4: FINDINGS AND DISCUSSION

Chapter 4 shows the study results. The data analysis was divided into three main categories including pre-test comparison, pre-test and post-test comparison, and post-test comparison. Basing on the mean comparisons, researcher could conclude if there was any effectiveness of teaching explicitly assimilation and linking on participants' perception and production.

1. Mean comparison of two groups on pre-test

The study's pre-test aimed to compare the participants' ability about two aspects of connected speech before beginning the study's treatment. Several Independent-Samples T- tests were used to calculate data exactly and indicate whether participants' ability of both group were homogenous or not.

1.1. The data from recognition pre- test

To examine the CS recognition ability of students in the pre-test, a recognition test was designed with two parts including listening test and listing test. The result was handled by "Independent-Samples T Test".

Participants' scores were calculated and Independent-Samples T- test was run to find the mean of each group. As can be seen on the table 3, the difference between control group and experimental group was negligible. The mean of control group was 3.1550 which was a bit higher than experimental group with a mean of 3.0250. The probability value of recognition test was .639 ($p > .05$). It means that recognition ability of both groups had similarities in listing test and listening test.

Table 3: Mean comparison in aspects of CS recognition of both groups on pre-test

Groups	N	Mean	Sig.
Experimental group	20	3.0250	.639
Control group	20	3.1550	

Although both groups saw the homogeneity about listening test and listing test, participant realized targets in listening test more than listing test. The "p" value of listening and listing test were .838 (table 4) and .204 (table 5) respectively. These

figures revealed that participants of both groups were at the same level in their listening test and listing test.

Table 4: Mean comparison of both groups on listening pre-test

Groups	N	Mean	Sig.
Experimental group	20	4.9995	.838
Control group	20	4.9210	

Table 5: Mean comparison of both groups on listing pre-test

Groups	N	Mean	Sig.
Experimental group	20	1.0680	.204
Control group	20	1.3975	

Other Independent-samples t-tests were run to evaluate the linking and assimilation recognition before investigating. Table 6 illustrates the mean comparison of both groups on listening test. The mean comparisons of experimental and control groups on linking listening test were 4.9 and 4.98 respectively. The means of assimilation were 5.1905 (experimental group) and 4.8080 (control group). The p value were .882 (linking) and .435 (assimilation). Listing test results were not different which witnessed a homogeneous ability of experimental and control participants (linking = .195, assimilation = .445).

Table 6: Mean comparison of both groups on linking and assimilation listening pre-test

	Groups	N	Mean	Sig.
Linking	Experimental group	20	4.9000	.882
	Control group	20	4.9800	
Assimilation	Experimental group	20	5.1905	.435
	Control group	20	4.8080	

Table 7: Mean comparison of both groups on linking and assimilation listing pre-test.

	Groups	N	Mean	Sig.
Linking	Experimental group	20	1.9000	.195
	Control group	20	2.5450	

Assimilation	Experimental group	20	.1300	.445
	Control group	20	.0900	

All in all, the “p” value were all higher than $p = .05$. This proved that there was no statistically significant difference between control group and experimental group on recognition pre-test. This was a good condition to be able to evaluate easily the effectiveness of teaching assimilation and linking.

1.2. The data from production pre- test

Regarding CS production pre-test, a “reading text” test and speaking test were used to assess participants’ performance. Table 8 and 9 indicated that producing aspects of connected speech through reading a given text and conversation was not too different.

The result from table 8 indicated that the mean of aspects of CS performance of control group and experimental group were approximately similar in “reading text” pre-test with the probability value was .980 exceeding $p = 0.05$.

Table 8: Mean comparison of two groups’ performance on the reading text pre-test

Group	N	Mean	Sig.
Experimental group	20	1.5080	.980
Control group	20	1.5140	

Almost all learners of both groups got troubles in producing aspects of connected speech in their conversations. There was not any considerable difference between experimental group and control group in CS performance (table 10, $p = .501 > .05$)

Table 9: Mean comparison of two groups’ performance on the speaking pre-test

Group	N	Mean	Sig.
Experimental group	20	2.2400	.501
Control group	20	1.8055	

Basing on aggregated data, it was concluded that participants of control group and experimental group were similar in their perception as well as producing ability.

2. Mean comparison of both groups on pre-test and post-test

In order to examine the variance between two groups' performance on the pre-tests and post-tests, paired-samples t-tests were employed. The statistics were shown below.

2.1. The participants' "connected speech recognition"

After training course, there were obvious differences between two groups on pre-test and post-test. According to statistics, it exposed that the mean of experimental group and control group on CS recognition in post-test was higher than their pre-test means ($p = .000 < .05$). However, the mean of experimental group is much more considerable than that of control group (experimental group = 2.25750, control group = .98550).

Table 10: Mean comparison of the experimental group's CS recognition pre and post- test

	Mean	Sig.
Post-test minus pre-test	2.25750	.000

Table 11: Mean comparison of the control group's CS recognition pre and post- test

	Mean	Sig.
Post-test minus pre-test	.98550	.000

It cannot be denied that the experimental group witnessed a significant improvement in recognizing connected speech in post-test. Interestingly, although the mean of control group in pre-test was slightly higher than the mean of experimental group with 3.025 and 3.155 respectively (table 12, 13), the control group did not make a noticeable change in the post-test (pre-test = 3.155, post-test = 4.1405, $p = .000 < .05$) in comparison with the experimental group (pre-test = 3.025, post-test = 5.2825, $p = .000 < .05$). It can be concluded that teaching explicitly aspects of connected speech could raise students' awareness of connected speech.

Table 12: Mean comparison of the experimental group's CS recognition pre and post-test

Tests	N	Mean	Sig.
Pre-test	20	3.0250	.000
Post-test	20	5.2825	

Table 13: Mean comparison of the control group's CS recognition pre and post-test

Tests	N	Mean	Sig.
Pre-test	20	3.1550	.000
Post-test	20	4.1405	

The bar charts demonstrate an increase in recognizing linking and assimilation in post-test. The experimental group, however, saw a much more considerable change. After treatment, the percentage of recognized target words rose by 28% (linking) and 15.9 % (assimilation) opposed to control group with only 9.4% (linking) and 11% (assimilation).

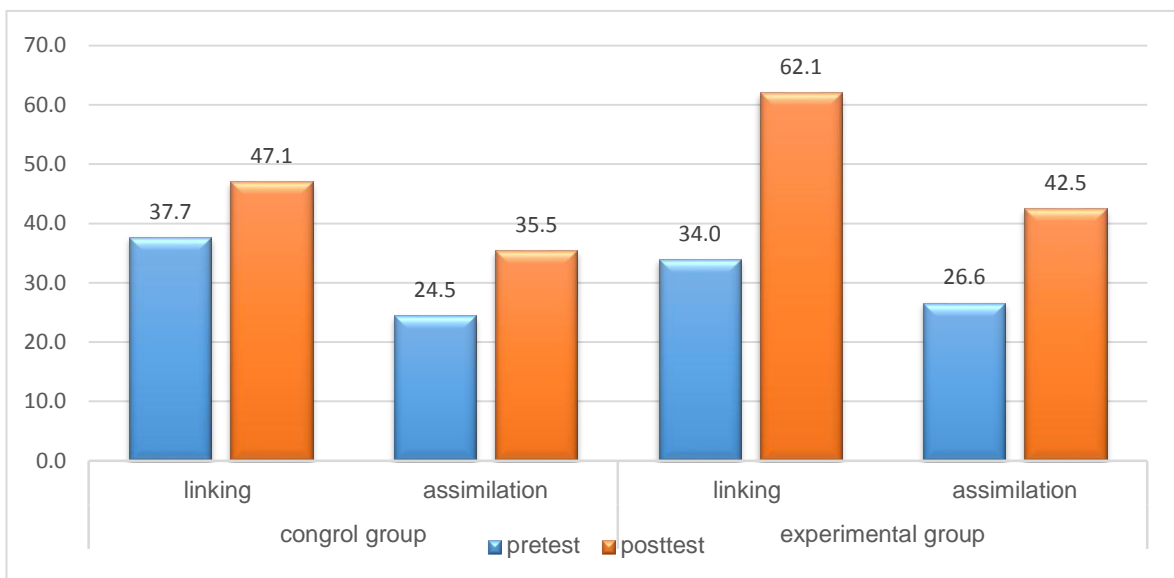


Figure 2: Linking and assimilation recognition of control and experimental groups

To sum up, both groups received positive results after investigation. Participants of two group could recognize linking and assimilation both in listening and texts. Although it was not the best result, but it was still a positive one in comparison with the pre-test.

2.2. The participants' "connected speech production"

The picture of CS production comparison was not different from recognition. According to the comparison mean from Paired-samples t- tests, both groups had higher results in their post-test. The mean of control group, however, just rose steadily by .41150 following experimental group with a mean of 1.08700 (table 14). With $p = .000$, both groups had significant differences.

Table 14: Mean comparison of both groups on reading test

		Mean	Sig.
Experimental group	Post-test minus pre-test	1.08700	.001
Control group	Post-test minus pre-test	.41150	.000

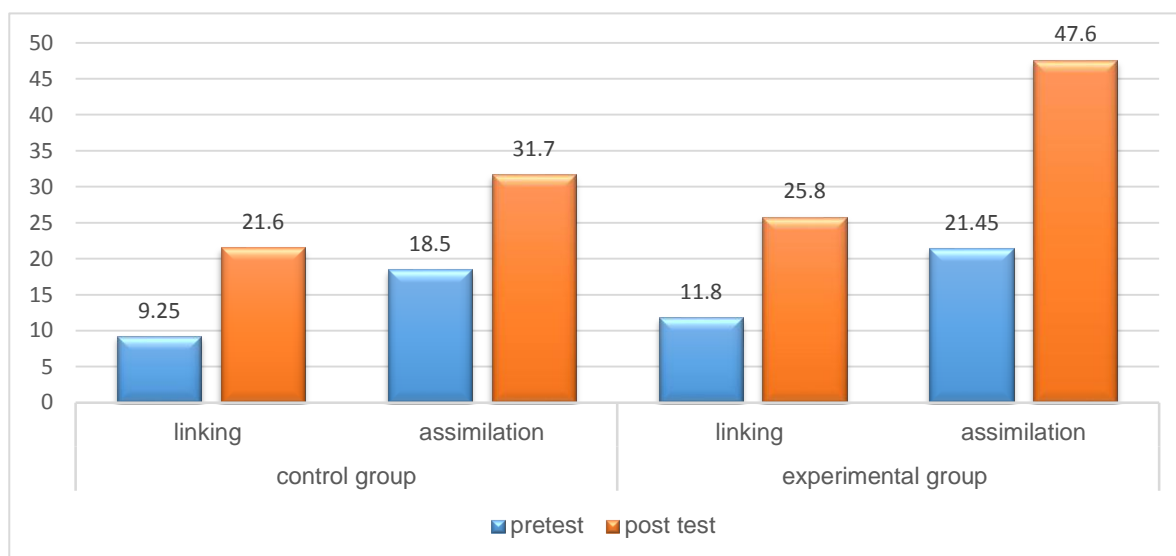
Table 15 compared the participants' ability of applying aspects of connected speech into their conversation. In comparison with pre-test, both groups changed positively. The probability value of control group was .000 and experimental group was .001.

Table 15: Mean comparison of the both groups on speaking test

		Mean	Sig.
Experimental group	Post-test minus pre-test	1.75500	.001
Control group	Post-test minus pre-test	1.24000	.000

The bar chart gives more detailed information about the production ability of control group and experimental group. In general, the percentage of produced target words went up after treatment. However, production ability witnessed an extremely opposite trend in comparison with recognition ability. Participants realized linking more than assimilation (figure 2), but they produced assimilation more than linking (figure 3). This was simply because of the unbalanced number of target words in participants' speaking. While the average number of linking was around 18, the number of assimilation was about 5.

Figure 3: Linking and assimilation production of control and experimental groups



It can be seen obviously from figure 2 and figure 3 that students could recognize target words better than produce them. However, the ability of producing each type of linking or assimilation was also different.

Table 16 and 17 showed the proportion of linking performed by control group and experimental group in reading and speaking tests. Participants produced C-C linking better than C-V linking and V-V linking with more than 50% targets performed. C-V linking is seemed to be one of the most popular aspects in spoken language. C-V linking shows obviously the combination between two sounds at the boundaries. In fact, although both group achieved certain improvement in producing C-V linking in reading test and speaking test, C-V production ability stood at second position following C-C linking. In terms of V - V linking, this is such a difficult phenomenon for students to perform because student have to add a final consonant to link to the initial vowel sound of next word. This is a reason why they produced V-V linking the least of three types.

Table 16: The percentage of performed linking of both groups (Reading test)

Group	Tests	C-C linking	C-V linking	V-V linking
Experimental group	Pre-test	52.5 %	2.84%	0%
	Post-test	58.3%	10%	3%
Control group	Pre-test	55%	2.04%	0%
	Post-test	55%	6.13%	0%

Table 17: The percentage of performed linking of both groups (Speaking test)

Group	Tests	C-C linking	C-V linking	V-V linking
Experimental group	Pre-test	57.5%	9.9%	3.55%
	Post-test	77.3%	25.7%	18.2%
Control group	Pre-test	46.9%	4.1%	5.26%
	Post-test	61.8%	13.5%	9.1%

After treatment, assimilation targets were also produced more than the pre-test. However, the experimental group got higher result than control group in both reading test and speaking test (table 18, 19). Most of students are used to drop off ending sound; therefore; assimilation of manner was performed accidentally and assimilation of voicing couldn't occur. It can be seen from the given tables that participants produced assimilation of manner the best and performed assimilation of voicing the least effectively.

Table 18: The percentage of performed assimilation of both groups (Reading test)

Group	Tests	Assimilation of manner	Assimilation of place	Assimilation of voicing
Experimental group	Pre-test	20%	18.6%	22.7%
	Post-test	65%	38%	32.7%
Control group	Pre-test	15%	24%	19%
	Post-test	40%	30.2%	24.8%

Table 19: The percentage of performed assimilation of both groups (Speaking test)

Group	Tests	Assimilation of manner	Assimilation of place	Assimilation of voicing
Experimental group	Pre-test	41.7%	24.1%	58.8%
	Post-test	100%	49.2%	76.8%
Control group	Pre-test	60%	17.6%	14.3%
	Post-test	41.7%	40%	7%

In general, the result of post-tests was better than that of pre-test. It can be concluded that explicit instructions had positive effectiveness on learners' production and perception.

3. Mean comparison of both groups on post-test

3.1. Assimilation and linking recognition

As results obtained, the post-test mean of the experimental group on recognition test was higher than mean of the control group. However, to check if it was significant or not, several Independent-samples t- tests were used to compare control group's mean with experimental group's mean in their recognition post-test. Table 20 exposed that there was a noticeable difference between the result of control group and experimental group in recognition post-test ($p = .002 < .05$).

Table 20: Mean comparison of two groups on recognition post-test

Groups	Mean	Sig.
Experimental group	5.2825	.002
Control group	4.1405	

The figure for the listing test and listening test also revealed that the ability of finding phenomena in a text as well as recognizing them in recordings of experimental group was better. Mean comparisons were .003 and .011 respectively (table 21).

Table 21: Mean comparison of two groups on listing and listening post-test

	Groups	Mean	Sig.
Listing	Experimental group	2.9990	.003
	Control group	1.8330	
Listening	Experimental group	7.5655	.011
	Control group	6.4480	

It can be seen that both groups saw a homogeneity in pre-test, but the experimental group overtook control group in post-test. Therefore, it can be claimed that CS instruction was effective in increasing ELF's connected speech recognition and students' awareness of CS was enhanced considerably. Basing on it, the second research question had an obvious answer.

3.2. Assimilation and linking production

The result from table 22 illustrated that the mean of experimental group outperformed the control group ($p = .042 < .05$).

Table 22: Mean comparison of two groups on reading post-test

	Groups	Mean	Sig.
Reading	Experimental group	2.6190	.042
	Control group	1.9305	

Another Independent-samples t-test pointed that there was a significant difference between two groups' performance on the CS production test (speaking) with $p = .009 < .05$. Although both groups witnessed a more positive result in post-test, the experimental group had a higher result in comparison with control group. Hence, it could be concluded that aspects of connected speech instruction was helpful in raising the learners' CS application ability in their daily conversation.

Table 23: Mean comparison of two groups on speaking post-test

	Groups	Mean	Sig.
Speaking	Experimental group	4.3560	.009
	Control group	2.8585	

4. Discussion

Listening and speaking are two skills that play an important role in learning a foreign language. It is also believed that listening is closely-related to speaking skills. Rankin (1929) indicated that listening is the most frequently used language activity and has a close relationship with speaking skills. According to the study of

Tamador K. Abu-Snoubar (2017), listening has an influence on the development of oral proficiency in EFL classes. To help EFL learners improve their listening and speaking skills, researchers investigated the impacts of different factors. Among many proposals, researchers seem to have the same opinion that connected speech is one of the main reasons for unsuccessful interactions. Authors pointed that production of connected speech not only help learners' speech to be more fluent (Morely, 1991), but also has positive effects on their receptive skills (Hill & Beebe, 1980). Inspired by the existing literature, this study tried to test the effect of English "reduced forms" instruction on students' perception and production.

After comparing means from pre-tests and post-tests, the research questions were able to be answered obviously. There was a difference between control group and experimental group after instructing aspects of connected speech explicitly. Giving explicit instruction brought positive results in terms of participants' perception and production ability. However, the findings also indicated that students could recognize better than produce aspects of connected speech. The average score in listening test was improved in post-test. The experimental group increased considerably while control group saw a slight rise. It can be determined that teaching aspects of connected speech helped students realize assimilation and linking better in listening. In comparison with listening test, learners had difficulties in recognizing aspects of connected speech in a text. Although there were improvements, they were trivial. Students' CS production capability also went up after investigation. However, the pre/post-test results indicated experimental group's performance was better than the performance of control group. Although control group could produce aspects of connected speech better than experimental group in pre-tests, the experimental group outperformed in post-tests. Therefore, teaching CS had a positive effect on students' production.

The results are also in line with Mhammad Saber Khaghaninezhad & Ghasem Jafarzadeh (2013) who determined that teaching "reduced forms" helped students to master their listening and speaking skills. There was a significant difference between two groups after treatment. His study investigated male learners at

different age range in 10 weeks opposed to the present study which lasted for 7 weeks for younger female participants. Although there were differences about participants' age, gender and research duration between two studies, the results approved that CS explicit instructions did wonder for learners' perception and production.

Baghrahi (2014) approved that raising assimilation knowledge could improve learners' listening comprehension. Author used two tests to evaluate effects of teaching assimilation on listening comprehension including Cambridge Preliminary English Test (PET) and connected speech forms Dictation Test, while the present research only used fill-in-blank test to check the ability of CS recognition in listening. Although the aim of two studies were different; however, the CS recognition is the foundation for listening comprehensively. Therefore, the result from Baghrahi's research could compare correlatively with the present study. Both studies witnessed an improvement in listening which was an evidence for the benefit of teaching assimilation.

Alameen (2014) investigated three groups AV (Audio visual) group, AO (Audio only) group and a control group to evaluate the impacts on learners' perception and production. Groups could raise awareness about linking, but they did not make significant improvement in production. The results from Alameen's study were similar to the current research although the participants of two studies was a bit different. While the present study focused on the first year English major student in a University in Viet Nam, the participants of previous study were studying in the US. Learning and teaching environment among participants was totally different, but the studies' results approved that instructing aspects of connected speech was advantageous to students' recognition ability.

Whether there were certain differences and similarities about participants, gender or even learning environment, the results from previous studies had similarities with the current study. They exposed that teaching aspects of connected speech brought undeniable benefits to English learners. Hopefully, instructing aspects of connected speech would be widely taught for English learners.

CHAPTER 5: CONCLUSION AND IMPLICATION

The researcher has attempted to present the findings and an explanation of the results in the preceding chapter. In this chapter, findings were first given. Then, advice was offered. Next, the limitations of the study were pointed out, followed by the recommendations for future research. The study ended with conclusion.

1. Findings

This study proved effectiveness as well as benefits of teaching CS on ELF's perception and production. The pre-test and post-test results indicated that participants of both groups improved their recognition ability and production ability at the end of training course. However, results also showed that experimental participants had overtaken control participants on CS recognition and production ability.

The findings also revealed that explicit instructions had better influences on recognition than production. This is because phonology is a difficult area in language, especially aspects of connected speech, it is cannot expected that student can produced CS smoothly in a short time. However, being aware of the importance of CS as well as having a theoretical foundation about CS is the first step for L2 learners to be able to develop their skill later on.

Beside positive findings, after finishing this research, author also found out some problems. Students got difficulties not only about pronunciation but also grammar and vocabulary. Hopefully, there will have feasible solutions to solve these problems.

2. Implications

Basing on the finding of this study, there are some applications for languages learners, languages teacher and School of Foreign Languages-TNU.

Advantages of aspects of connected speech are undeniable. Although assimilation and linking are not evaluation criteria of a speaking, they play an integral part in creating a natural and smooth speech. However, aspects of connected are only applied when students can pronounce correctly. In this study,

students still made mistakes related to basic pronunciation. A lot of students got troubles with English consonants, dropped off the ending sounds and shaped the mouth incorrectly. To improve the pronunciation, students should study how to form the mouth and tongue for each sound. Tutorial videos are important for any English learners that enable students learn how to shape the mouth, lips or teeth in correct ways. Moreover, students should spend time practicing because it is the key of proper pronunciation. The more students practice, the better their pronunciation will become. Video recording is also an effective way for students to check whether they have correct shape of the mouth and pronounce fully ending sounds.

Students are familiar with slow and separated speech in Vietnamese causing linking or assimilating unnaturally. Students should spend time practicing speaking English as fast as possible. To improve speaking speed, students should pronounce slowly and accurately first and then gradually increase the speed.

English club is a good place where students can have opportunities to practice English with others. School of Foreign languages should organize English activities and promote club programs to encourage students to take part in and improve their English.

Teaching pronunciation should be diverse through using stories, conversation in each lesson. This not only helps student improve their pronunciation but also develop other aspects of knowledge such as grammar and vocabulary. It would be better if teacher spent time correcting students' mistakes because there are a number of students understanding the theory but when they pronounce they do not know whether they do right or wrong. Of course, the teaching time should be lengthened to ensure that students can improve their pronunciation right after finishing the first semester. This is a foundation for them to develop other subjects and skills at university such as listening, speaking, presentation and things.

3. Limitations of the study

Although there were so many different solutions to avoid possible problems and bias in the study, several limitations of the study were still inevitable.

First of all, the study focused on investigating 40 first year English major students about instructing three aspects of connected speech. The scope of study was so narrowed and only applied to the first year English major students. The researcher believes if more groups of students participated, there would be more application.

Second of all, due to time constraints, the topic only focused on testing the effectiveness of CS instruction on students' perception and production. The study didn't working much on methods of teaching pronunciation.

In addition, due to technology limitations, the quality of recordings is not high. There are some records that still contain noise which is difficult for researcher to hear aspects of connected speech easily and quickly. Researcher will save a lot of time and the accuracy of the study will be higher if cutting-edge devices are used.

Although students were taught basic pronunciation in the first semester, they were short of fundamental knowledge of phonology. This affected to the results of the research.

Last but not least, the students sometimes did not do the test objectively, so the researcher cannot assess the students' foreign language competence accurately. This may lead the less significance of the study.

4. Suggestions for the future studies

Despite these limitations, findings from the present study provide a step forward in the future studies. Below ideas indicates the directions for the future studies:

The current study only investigated in 40 students which may lead the the less significant results. To be generalized the research; the later studies should be investigated in a large population. New findings as well as new ideas will be found when researching in the greater number of participants.

The study tested two aspects of connected speech which were really large to cover. In the future, researchers should narrow the topic to investigate. The effect of

one aspect of connected speech on a certain skill such as listening or speaking is a better approach.

The present study didn't emphasize much on methods of teaching aspects of connected speech. Therefore, the future studies should be researched about methods of teaching CS to be able to find appreciate and effective teaching methods for English learners in general and ELF's in particular.

The research focused on aspects of connected speech and skipped other aspects of language such as vocabulary and grammar. Future studies may dig deeper into those areas.

5. Conclusion

This study represents the researchers' efforts to investigate a very real part of language to improve students' listening and speaking skills. The study results proved advantages of connected speech to English learners. Students were able to realize and produce aspects of connected speech after they received instructions. The findings were similar to the results of previous studies; therefore, it could be completely concluded that teaching connected speech has positive influences on learners' perception and production.

Although research still has certain limitations, however, it also provides a valuable opportunity for researchers to have thorough insights into the importance of phonology, especially aspects of connected speech in teaching and learning a foreign language. It is hoped that students would benefit from this study and would devote more time and effort to improve knowledge of phonology which brings great contribution to language acquisition.

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**APPENDIX 1: PARTICIPANTS' RECOGNITION SCORES
(EXPERIMENTAL GROUP)**

No.	Participants	Pre-tests' scores			Post-tests' scores		
		Listening	Listing	Average	Listening	Listing	Average
1	a	0.39	4.47	2.4	1.67	7.11	4.39
2	b	1.18	4.74	3.0	3.14	6.32	4.73
3	c	1.57	4.47	3.0	3.82	7.89	5.86
4	d	0.49	4.47	2.5	2.84	6.05	4.45
5	e	0.29	3.95	2.1	0.59	5.79	3.19
6	f	0.49	3.68	2.1	0.88	5.26	3.07
7	g	1.37	7.11	4.2	3.33	8.42	5.88
8	h	1.37	6.05	3.7	4.31	8.95	6.63
9	i	0.98	5.79	3.4	3.92	8.68	6.30
10	j	3.33	5.53	4.4	4.02	8.16	6.09
11	k	1.76	7.11	4.4	3.33	9.47	6.40
12	l	0.88	5.79	3.3	3.92	8.42	6.17
13	m	0.59	5.26	2.9	1.76	8.68	5.22
14	n	1.08	4.47	2.8	5.00	8.42	6.71
15	o	1.18	5.26	3.2	3.24	8.95	6.09
16	p	1.67	5.00	3.3	3.82	7.11	5.46
17	q	1.27	4.47	2.9	2.65	7.11	4.88
18	r	0.78	5.26	3.0	2.55	7.63	5.09
19	s	0.20	4.74	2.5	4.80	8.42	6.61
20	t	0.49	2.37	1.4	0.39	4.47	2.43

APPENDIX 2: PARTICIPANTS' RECOGNITION SCORES (CONTROL GROUP)

No.	Participants	Pre-tests' scores			Post-tests' scores		
		Listening	Listing	Average	Listening	Listing	Average
1	A	2.94	5.00	4.0	2.45	5.53	3.99
2	B	2.65	6.05	4.3	3.82	7.11	5.46
3	C	1.86	4.74	3.3	2.16	6.32	4.24
4	D	2.55	6.05	4.3	3.04	8.16	5.60
5	E	2.75	5.53	4.1	3.04	6.05	4.55
6	F	0.59	4.74	2.7	0.78	5.79	3.29
7	G	0.49	4.47	2.5	0.88	6.58	3.73
8	H	1.67	5.26	3.5	1.76	6.84	4.30
9	I	0.88	4.74	2.8	2.16	6.84	4.50
10	J	1.76	5.53	3.6	2.35	7.63	4.99
11	K	1.37	7.11	4.2	1.96	8.42	5.19
12	L	2.55	6.32	4.4	3.24	7.37	5.30
13	M	1.27	2.63	2.0	1.96	3.42	2.69
14	N	1.18	6.84	4.0	1.08	8.16	4.62
15	O	0.39	2.63	1.5	1.08	5.00	3.04
16	P	0.59	4.21	2.4	0.49	6.05	3.27
17	Q	0.69	5.00	2.8	1.47	7.11	4.29
18	R	0.88	5.26	3.1	1.47	6.58	4.02
19	S	0.69	3.68	2.2	0.69	5.53	3.11
20	T	0.20	2.63	1.4	0.78	4.47	2.63

**APPENDIX 3: PARTICIPANTS' PRODUCTION SCORES
(EXPERIMENTAL GROUP)**

No.	Participants	Pre-tests' scores			Post-tests' scores		
		Reading	Speaking	Average	Reading	Speaking	Average
1	a	2.42	0.77	1.60	3.41	2.50	2.96
2	b	1.01	0.67	0.84	1.78	3.47	2.63
3	c	1.22	1.74	1.48	1.74	3.75	2.75
4	d	1.11	1.73	1.42	2.80	2.67	2.74
5	e	1.10	6.90	4.00	2.00	4.43	3.22
6	f	1.11	4.22	2.67	2.12	3.00	2.56
7	g	2.79	3.73	3.26	4.19	5.63	4.91
8	h	1.62	0.80	1.21	3.63	5.83	4.73
9	i	2.64	6.48	4.56	5.49	4.48	4.99
10	j	2.04	1.32	1.68	3.33	7.81	5.57
11	k	1.52	2.09	1.81	2.52	4.54	3.53
12	l	1.01	0.29	0.65	2.50	5.90	4.20
13	m	0.98	0.71	0.85	2.00	5.75	3.88
14	n	1.72	0.36	1.04	2.92	6.25	4.59
15	o	2.04	3.06	2.55	3.45	4.48	3.97
16	p	1.62	1.07	1.35	2.92	4.78	3.85
17	q	0.69	1.00	0.85	1.20	0.86	1.03
18	r	0.89	3.75	2.32	1.34	3.06	2.20
19	s	2.21	4.11	3.16	2.62	5.88	4.25
20	t	0.42	0.00	0.21	0.42	2.05	1.24

APPENDIX 4: PARTICIPANTS' PRODUCTION SCORES (CONTROL GROUP)

No.	Participants	Pre-tests' scores			Post-tests' scores		
		Reading	Speaking	Average	Reading	Speaking	Average
1	A	1.52	0.23	0.88	2.21	4.02	3.12
2	B	1.72	1.29	1.51	2.92	1.99	2.46
3	C	1.82	1.00	1.41	2.22	2.08	2.15
4	D	1.10	0.00	0.55	1.81	2.79	2.30
5	E	1.92	0.42	1.17	2.85	2.50	2.68
6	F	0.51	3.21	1.86	0.80	1.25	1.03
7	G	1.11	2.20	1.66	2.05	2.36	2.21
8	H	2.47	1.44	1.96	2.22	0.99	1.61
9	I	1.49	0.32	0.91	0.75	1.92	1.34
10	J	1.71	1.75	1.73	2.22	2.19	2.21
11	K	4.14	2.67	3.41	4.63	4.86	4.75
12	L	2.12	8.93	5.53	2.53	7.33	4.93
13	M	1.11	1.25	1.18	1.20	2.25	1.73
14	N	0.80	0.00	0.40	1.57	1.00	1.29
15	O	0.79	1.25	1.02	0.80	1.52	1.16
16	P	1.71	1.74	1.73	1.70	0.76	1.23
17	Q	0.21	0.63	0.42	0.89	4.44	2.67
18	R	1.52	1.33	1.43	2.12	3.98	3.05
19	S	1.20	4.58	2.89	1.30	5.83	3.57
20	T	1.31	1.87	1.59	1.82	3.11	2.47

APPENDIX 5: PRODUCTION TEST

Task 1: Read out this text.

WOMEN IN SOCIETY

Throughout much of the history of human civilization, deep-seated cultural beliefs allowed women only limited roles in society. Many people believed that women's natural roles were as mothers and wives. These people considered to be better suited for childbearing and homemaking rather than for involvement in the public life of business or politics. Widespread doubt about women's intellectual ability led most societies deny education, employment and many legal and political rights to women. It was men who controlled most positions of employment and power in society.

The struggle of women's rights- the rights that establish the same social, economic, and political status for women and for men- began in the 18th century during the period known as the Age of Enlightenment. During this period, political philosophers in Europe began to argue that all individuals, male or female, were born with natural rights that made them free and equal. These pioneer thinkers advocated that women should not be discriminated against on the basis of their sex.

Today, although their status varies in different countries, women in most parts of the world have gained significant legal rights. The most important of these are: the right to have equal work opportunities and pay to men, the right to vote, and the right to formal education.

(English textbook-12)

Task 2: Work with your partner to make a conversation.

APPENDIX 6: RECOGNITION TEST

Task 1: Listen and write down the missing words [linking].

1.

A: Can

B: Yes, The door.....

2.

A:

B: No,

3.

A:

B: It.....

4.

A: How

B:

5.

I love I eat at restaurantsthe time.

....., but I don't care.

Task 2: Fill the missing words in the blank.

1. She's a

2. I've never been in

3. We it.

4. see it?

5.

A: What time

B: It's exactly twelve o'clock.

6.

A: Do you play weekend, Rita?

B: No, I

7.

A: Wow, what happened?

B: I

A: Gee. That pretty bad.

B: yeah

8.

I never like stamp collecting, but now I think it's great.

9.

I get my passport renewed.

Task 3: Read the text and then indicate how many assimilation and linking may occur. Write words in columns below:

Assimilation	Linking
<i>Example: in the ,</i>	<i>Example: much of,</i>

WOMEN IN SOCIETY

Throughout much of the history of human civilization, deep-seated cultural beliefs allowed women only limited roles in society. Many people believed that women's natural roles were as mothers and wives. These people considered to be better suited for child bearing and homemaking rather than for involvement in the public life of business or politics. Widespread doubt about women's intellectual ability led most societies to deny education, employment and many legal and political rights to women. It was men who controlled most positions of employment and power in society.

The struggle of women's rights- the rights that establish the same social, economic, and political status for women and for men- began in the 18th century during the period known as the Age of Enlightenment. During this period, political philosophers in Europe began to argue that all individuals, male or female, were born with natural rights that made them free and equal. These pioneer thinkers advocated that women should not be discriminated against on the basis of their sex.

Today, although their status varies in different countries, women in most parts of the world have gained significant legal rights. The most important of these are: the right to have equal work opportunities and pay to men, the right to vote, and the right to formal education.

APPENDIX 7: KEYS OF LISTENING TEST

Task 1: Listen and write down the missing words [linking].

1.

A: Can **I** come in?

B: Yes, **come on in**. The door is open.

2.

A: **Should I** leave it on?

B: No, **turn it off**.

3.

A: **What time** is it?

B: It's **already five o'clock**.

4.

A: How **far** is it?

B: **Four and a half hours** away

5.

I love **to eat out**. I eat at restaurants **most of** the time. **It's expensive**, but I don't care.

Task 2: Dictation. Write down what you hear.

1. She's a good girl.

PLACE

2. I've never been in speed boat.

PLACE

3. We can buy it.

PLACE

4. Did you see it?

PLACE

5.

What time is it now?

Manner

It's exactly twelve o'clock. Midnight.

Manner

6.

A: Do you play sports on the weekend, Rita?

Voicing/ PLACE

B: No, I hate sports.

Manner

7.

A: Wow, what happened?

B: I went skiing.

Manner

A: Gee. That looks pretty bad.

Voicing

B: yeah

8.

I never used to like stamp collecting, but now I think it's great.

Voicing

9.

I have to get my passport renewed.

Voicing

APPENDIX 8: THE NUMBER OF TARGETS IN READING TEXT

Linking	Paragraph 1	Paragraph 2	Paragraph 3
C-C	considered to Widespread doubt	Europe began	right to
C-V	much of beliefs allowed women only roles in were as mothers and for involvement involvement in life of business or doubt about women's intellectual intellectual ability employment and legal and positions of of employment employment and power in	struggle of that establish women and began in known as Age of of Enlightenment philosophers in all individual male or and equal thinkers advocated discriminated against against on basic of	varies in women in parts of most important important of these are have equal work opportunities opportunities and formal education
V-V	history of deny education	to argue free and	

Assimilation	Paragraph 1	Paragraph 2	Paragraph 3
Place	Throughout much human civilization seated cultural believed that childbearing led most and many and political controlled most most positions education in the	and political period known that made made them advocated that should not not be in the on the	different countries in most most parts and pay and the education
Manner			gained significant
Voicing	Beliefs Allowed Roles women's mothers wives considered suited for politics rights controlled positions societies	and for women's rights philosophers individuals thinkers	Varies countries parts rights opportunities

=> *Definition:* Linking is a process that the final sound of the preceding word links to the initials. There are 3 main types including C-C, C-V, V-V linking.

- C-V linking

Eg: Fill in -> /fi lin/

- C-C linking

Eg: Big girl -> /bi ggɜ:l/

- V-V linking

Intrusive /r/.

Eg: Far away => /fa:ʳ əwei/

Intrusive /w/

Eg: Go in => /gəu^w in/

Intrusive /j/

Eg: my aunt => /mai^j a:nt/

- Gives more examples and asked students to repeat after the recording

<i>look up</i>	<i>drop it</i>
<i>That's enough</i>	<i>a cup of coffee</i>
<i>fill a cup</i>	<i>write it</i>
<i>it's ok</i>	<i>four eggs</i>
<i>Just a little</i>	<i>4 years old</i>
<i>Two others</i>	<i>Too old</i>
<i>Going</i>	<i>Media events</i>
<i>Allow him</i>	<i>Day and night</i>

Teacher-
students

	<i>The end</i>	<i>Likes her</i>	
Perception exercises (15 minutes)	<ul style="list-style-type: none"> - Asks students to give some example about linking. - Gives students a short paragraph and ask them to write the transcription and list linking phenomena. <p style="text-align: center;"><i>“It is difficult to know how many elephants once lived in the continent, but there may have been at least 3-5 million elephants in Africa in the early part of the twentieth century. People have always hunted elephants for meat, hides and ivory. As the human population grew and weapons become more advanced, elephants were under great threat.”</i></p> <ul style="list-style-type: none"> - Checks 		Individual Group work
Production exercises (20 minutes)	<ul style="list-style-type: none"> - Asks students to read the following sentences <p><i>Please sit down until I call you.</i></p> <p><i>Deep as sea and wide as sky.</i></p> <p><i>You are always on my mind.</i></p> <p><i>Play a song for us on your guitar.</i></p> <p><i>I had the best time ever.</i></p> <p><i>That was a big grape I just ate.</i></p> <p><i>Did you exercise?</i></p> <p><i>Am I too old to learn another language?</i></p> <p><i>He wants to be alone.</i></p> <p><i>I’ll have some boiled potatoes.</i></p> <p><i>He is the picture of his father.</i></p> <p><i>You ought to give me your schedule.</i></p> <p><i>I almost fell on the ice.</i></p>		Pair work

	<p><i>I will take out the bottles when I pick up the children.</i></p> <p><i>I found it.</i></p> <ul style="list-style-type: none"> - Requires students to work in pair to make a conversation using linking phenomenon. 	Pair work
<p>Homework (5 minutes)</p>	<p>Summarizes</p> <p>Gives homework</p>	Teacher