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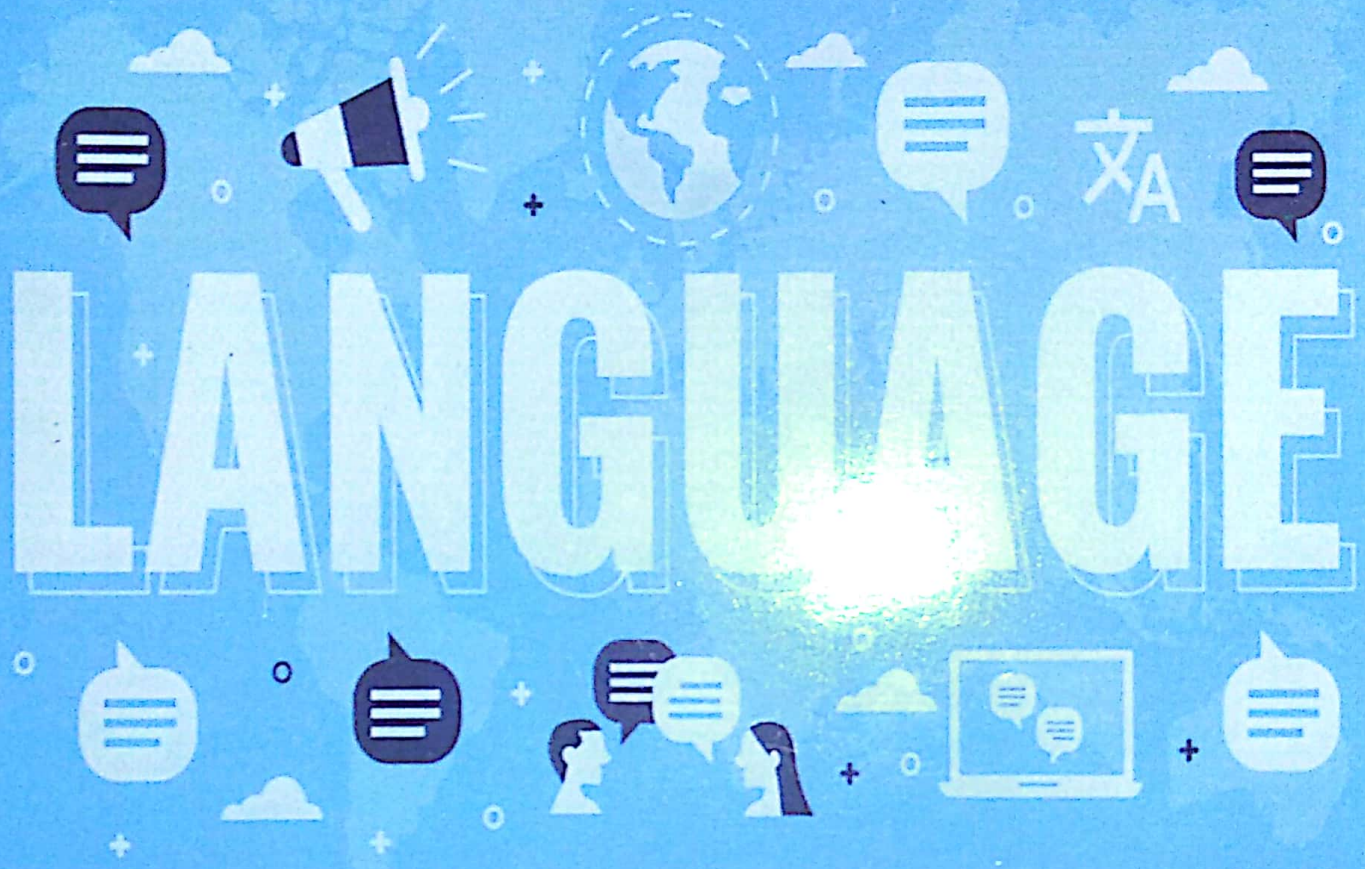

IMPLEMENTING ONLINE ACCENT REDUCTION SOFTWARE TO IMPROVE PRONUNCIATION OF ENGLISH AND ARABIC DEPARTEMENT STUDENTS OF IAIN PALU

Dr. Nurasmawati, S.Ag., M.Hum.
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Palu, December 2021
The Researchers,

Dr. Nurasmawati,S.Ag.,M.Hum
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DAFTAR ISI

INTRODUCTION

A. Background

With the increasing number of English speakers around the world, the English language has become communication tools cross-culturally, where the numbers of the non-native speaker are larger than the native speaker itself. According to Fraser (2000), pronunciation is very important in the English language because it helps people to communicate clearly. With clear pronunciation, learners are understood, even if they are lacking in grammar and vocabulary. Meanwhile, having a poor pronunciation can make the learner difficult to be understood even if they have excellent grammar. Pronunciation is not only important to deliver ideas easily but also to understand other speakers. It is important to integrate pronunciation into the beginner classes to help avoid the risks of fossilization and stabilization of pronunciation habits (Fraser, 2001).

In the 2013 curriculum, it is stated that there are some aspects which must be assessed by the teachers to find out the students' ability, such as speaking skill. The aspects are pronunciation, intonation, fluency, and accuracy.

Therefore, it is important for students to learn pronunciation to deliver their messages.

Pronunciation must be uttered in a correct way because an error in pronouncing words can cause miscommunication. It is common in English where the way that the words are written is different from how the words a repronounced. Mispronunciation occurs often to a second language learner. That is why pronunciation becomes one of the most important parts of the language.

Based on the researcher's preliminary observation to the students of English and Arabic Department IAIN Palu, we found out that the problems faced by most of the learners who are studying English are; first, students often got confused about the same sound of a word that is being pronounced, for example, they couldn't differentiate the sound (/ʃ/, /ʒ/) from (/s/, /z/). They also couldn't differentiate the sound (/θ/, /ð/) from (/t/, /d/). Harme (2007)suggests that if students want to be able to speak fluent English, they should be able to pronounce phonemes correctly and use an appropriate stress and intonation. The second problem faced by the students is, when they have been taught by a non-native speaker, the outcome is that the learners eventually have a non-standard accent which makes the use of English difficult for the native speaker to understand. Thus, the researcher focuses on the coronal sounds [θ, ð, z, ʃ, ʒ, tʃ, dʒ, and r] for the students to improve because those sounds are related to the students' problems. To solve the problem, the researcher should use an appropriate medium in teaching pronunciation. In line with the problems above, the researcher discovered that pronunciation pedagogy has passed through a great change by the emergence of technologies. That is why the researcher uses a technology which is called accent reduction software to improve learners' pronunciation. This software can guide the teachers to provide a better learning environment for the learners. It also provides learners with a free environment where they can have unlimited access to a repetitive practice on pronunciation at their own pace (Pi-hua, 2015). The software will be

applied based on standard curriculum and basic curriculum. The advantage of this medium is it gives students unlimited access, and it is easier for the teacher to prepare. The target of this research is to improve students' pronunciation. Thus, the researcher is convinced to carry out her research on the topic, "Implementing accent reduction software as a medium to improve pronunciation of Arabic and English Department students at IAIN Palu".

B. Problem Statement

Based on problems stated on the background of the study above where students often got confused about the same sound of a word that is being pronounced and when they have been taught by a non-native speaker, the outcome is that the learners eventually have a non-standard accent which makes the use of English difficult for the native speaker to understand. The researcher formulated a research question as follows:

"How can the implementation of accent reduction software to improve the pronunciation of English and Arabic Students Department at UIN Datokarama Palu?"

C. Research Significance

This research is expected to give contributions to the language teachers and learners to understand more about the use of accent reduction software. Meanwhile, the researcher expects that the result of the study can be useful for the teacher as an alternative in improving students' pronunciation. For the students, the result of the research can be useful to improve their pronunciation. And last, for the readers, this study could be used as a new reference in English and Arabic teaching and learning.

D. Research Scope

This research focuses on implementing accent reduction software to improve pronunciation and the improvement of pronunciation of individual sound. Therefore, to prevent this research from being excessively broad, the scope of

this research is limited to teaching the English and Arabic coronal sounds. The researcher chooses this because some of these sounds do not exist in Bahasa Indonesia, for example, the sounds /θ/ and /ð/. These sounds do not exist in Bahasa Indonesia so that they are difficult for the students to pronounce.

CHAPTER II
LITERATURE REVIEW

A. Previous Study

Research on pronunciation using computer software has been carried out by many researchers all over the world previously such as (Gorjian, Hayati, & Pourkhoni, 2013) investigated the effect of CALL (Computer Assisted Language Learning) in teaching prosodic features to EFL (English as a Foreign Language) learners. The findings suggest that applying CALL could improve EFL learners' pronunciation. The result also showed that learners who practiced stress and intonation by using CALL approach were more successful than the learners who were taught through a traditional method.

In addition, Kawai, and Hirose (2000) discussed the role of speech recognition technology for teaching Japanese double-mora phonemes to other language speakers. They discovered that this technology could help learners measure the phoneme durations and as well as monitor their progress by telling the learners (a) what the mistake was, (b) the severity of the error, and (c) how to correct the mistake.

Furthermore, Wang and Munro (2004) experimented an investigation the impact of CAPT (Computer Assisted Pronunciation Training) on learning English vowels. There was a total of sixteen Mandarin and Cantonese EFL learners who are improved in pronouncing these sounds within three months of training. The result of their study shows that by applying CAPT the Chinese EFL learners' understanding of the vowel contrasts could be increased.

Based on previous research above, there are three differences found. First, Gorjian, Hayati, and Pourkhoni's research was done at a high school level. Meanwhile, this research was carried out at a university level. Second, in Kawai's research, they specifically measure the phoneme duration. Last, Wang and Munro's research was focusing on the three-vowel contrast and they are /i/-/I/, /u/-/ ʅ, and /e/-/œ/. Meanwhile, this research is focusing on the coronal sounds. Therefore, the researcher is interested in doing the research under the title "Implementing accent reduction software as a medium to improve pronunciation of Arabic and English students at IAIN Palu Palu." This research is aimed to see whether the implementation of accent reduction software is effective in improving pronunciation of the students.

B. Definition of Pronunciation

Pronunciation refers to the production of sounds that we use to create meaning. It includes attention to the particular sounds of language, the aspect of speech such as intonation, stress, timing, and rhythm. In a broader definition, attention to the way we speak a language. It is also one way of communicating to deliver our thought orally in a more understandable way. Many experts have defined pronunciation in various ways, but then all the definitions have similar aims. Burns and Claire (2003) define pronunciation as the phonology of the language or perception and production of sounds of a language and how they impact on the listener. Another definition of pronunciation is from Cakir (2011) who stated that

pronunciation is the key factor that native speakers notice during a conversation.

To sum up, by having the two definitions of pronunciation above, it can be concluded that there is no point in learning words without pronunciation because it can lead to a communication breakdown. It is the component of the language that deals with the way someone producing the sound.

C. The Importance of Pronunciation

Learning pronunciation obviously cannot be separated from learning language skills. As previously, the prominent role of pronunciation is to produce the target language sounds accurately to exchange information between the speakers and the hearers. It is better to suggest that the very first English lesson should deal with pronunciation. If students do not have an opportunity to practice the correct pronunciation at the beginning of their learning, they may build their habits in pronouncing something in the wrong way. Therefore, learning words without pronunciation at the beginning of the lesson will potentially damaging the overall success and leads to fossilized pronunciation. Therefore, foreign language learners need to be equipped with correct pronunciation.

A non-native speaker of English must be very careful in pronouncing some utterances or else he/she may create a misunderstanding between others whom he/she communicates with. Breitkreutz, Derwing, and Rossiter (2001) assume that pronunciation is an important factor in communication. Poor pronunciation may cause misunderstanding and therefore can become a barrier to communication. Furthermore, Richard and Schmidt (2010) define pronunciation as the method of producing certain sounds. Based on the two quotations, we can conclude that pronunciation determines whether a communication can run well.

Lots of people assume that learning pronunciation means that we need to have a native-like pronunciation. This kind

of assumption is obviously not true because the important thing is having an intelligible pronunciation. Gilakjani (2016) states that "The goal of pronunciation instruction is not to ask learners to pronounce like native speakers. Instead, the intelligible pronunciation should be the real purpose of oral communication." This means that an intelligible pronunciation is more important than having a native-like pronunciation. Another statement comes from Hager (2001)that through pronunciation instruction, students not only learn different sounds but also improve their speaking skill. Concentrating on sound can make the learners more aware of where words should be stressed, and they give them more information about spoken English. Therefore, teaching pronunciation are to develop English that is easy to understand and not confusing to the learners, develop English that meets the learners need and that result in communicative competence, and help learners feel comfortable in using English.

D. The Elements of Pronunciation

As what has been stated in the importance of pronunciation that the speaker of English, native or non-native speaker, should be able to exchange meaning effectively. According to Burns (2003), it is important for the English speakers to achieve:

1. Intelligibility (the speaker produces sound patterns that are recognizable as English).
2. Comprehensibility (the listener can understand the meaning of what is said).
3. Interpretability (the listener can understand the purpose of what is said).

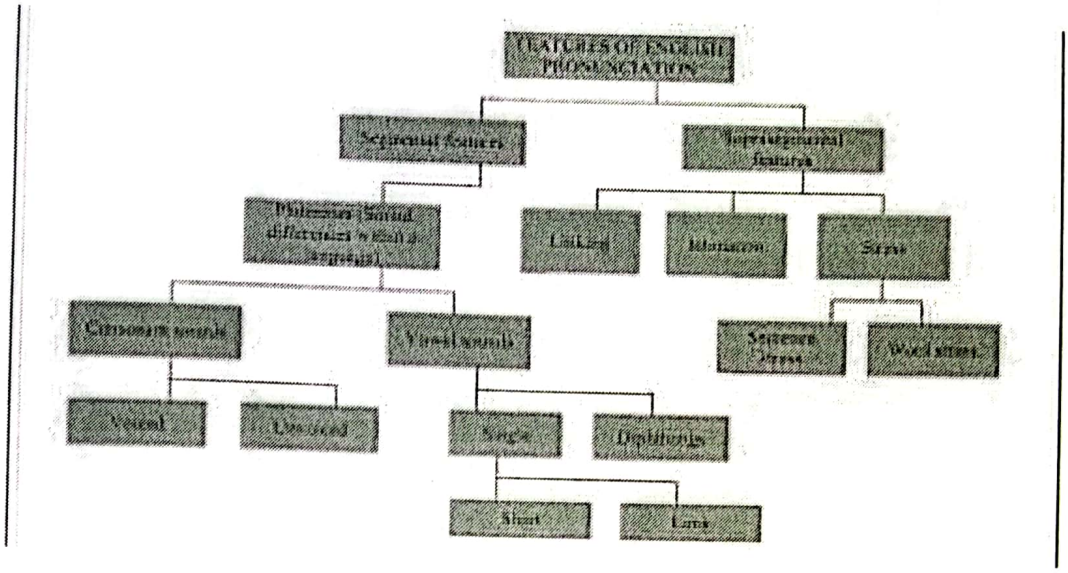


Figure 1 Elements of Pronunciation (Gilakjani, 2012)

From the diagram above pronunciation involves two types of features; they are the segmental level and the supra-segmental level. Knowing supra- segmental and segmental aspects of pronunciation is one of the criteria to make the learners learn easily. They also produce understandable and comprehensible. meaning. Both supra-segmental and segmental levels need to be learned because they are crucial to master pronunciation.

E. Segmental Level

The segmental level is easier to be explained and taught than the supra- segmental level. A segmental level is associated with sounds at the micro level. According to Saferoglu (2005), a segmental aspect of the sound system includes individual vowels and consonants. They include specific sounds within words (for example, *l* as in *lamp*, *r* as in *ramp*, *as* in *hat*). It consists of a phoneme. A phoneme is the smallest unit in the sound system of a language, and it is to distinguish between word meanings. According to Burns (2003), phonemes are sounds that, when produced incorrectly, can change the meaning of a word. Compare the changes of meaning in:

p<u>e</u>t	p<u>a</u>t
l<u>a</u>mp	r<u>a</u>mp
ab<u>ou</u>t	ab<u>o</u>rt

Consonant sounds can be voiced (a part of the mouth is closed and the air behind it is released suddenly – for example, v as in *van*, *b* as in *bun*) – or unvoiced (air is pushed through a narrow part of the mouth – for example, *f* as in *fan*, *th* as in *thin*). Vowel sounds are articulated as single sounds. They can be short (for example, ae as in *cat*) or long (a as in *cart*). Diphthongs are two vowel sounds put together (for example, ei as in *Kate* or as in *boy*) (A. Burns, & Claire, S., 2003)

F. Vowels

Basri (2013) states that in uttering vowels, the airflow escapes through the oral cavity freely. McMahon (2002) also states,

> All vowels are produced in a very limited 'vowel space' in the center of the oral tract, roughly between palatal and velar in consonantal terms; and the place of articulation will also be much more difficult to ascertain from self- observation, since the tongue never moves close enough to the roof of the mouth in vowel production to make its position easy to feel.

In addition, Basri (2013) classifies vowels into four parameters. The first parameter is tongue height. Tongue height is how the tongue moves when pronouncing a vowel. In this parameter, the tongue is divided into three positions that are high, mid, and low (Basri, 2013). The second parameter is called areas of tongue involved. The parameter used to describe vowels is the area of the tongue that is raised or lowered. Vowels are also divided based on the intensity of the constriction of vocal tracts. For this, we recognize tense and lax vowels (Basri, 2013). The last parameter is lip shape. Basri (2013) argues that lip shape has two types of vowels which are rounded and

unrounded. Therefore, we can conclude that the tongue height, areas of the tongue involved, the intensity of vocal tract constriction, and lip shape can classify vowels.

Table 1 Arabic Alphabet Vowels

Name	Character	Explanation	Pronunciation	Example	Transcription
Damma	ُ	Damma is an apostrophe-like shape written above the consonant which precedes it in pronunciation. It represents a short vowel u (like the "u" in "but").	u	بُت	but
Wāw	و	Wāw is the long vowel ū (like the "or" in "moon"). It also represents the consonant w. When Waw is used to represent the long vowel, damma appears above the preceding consonant.	**ū**	بُوت	būt
Fatha	◌َ	Fatha is a diagonal stroke written above the consonant which precedes it in pronunciation. It represents a short vowel a (a little like the "u" in "but"; a short "ah" sound).	**a**	بَت	bat
Alif	ا	Alif is the long vowel ā (a long "ahh" sound as in English "father").	**ā**	بات	bāt

Kasra	ِ	Kasra is a diagonal stroke written below the consonant which precedes it in pronunciation. It represents a short vowel i (like the "i" in English "pit").	i	بِ	bit
Ya'	ي	Ya' is the long vowel ī (like the "ee" in English "sheep"). It also represents the consonant y. When Ya' is used to represent the long vowel, kasra appears above the preceding consonant.	ī	بِي	bīt
Sukūn	ْ	Whenever a consonant does not have a vowel, it receives amark called a sukūn, a small circle which represents the end of a closed syllable (CvC or CvvC). It sits above the letter which is not followed by a vowel.		بِنْتُ	bintu
Shadda (or tashdīd)	ّ	Shadda represents doubling (or gemination) of a consonant. Where the same consonant occurs twice in a word, with no vowel between, instead of using consonant + sukūn + consonant, the consonant is written only once, and shadda is written above it.		تَبَّتَ	thabbata

Table 2. English Vowels

Vowels (Vokal)					
Short (pendek)		*Long* (panjang)		*Diphthong*	
ə	away, ago	iː	meat, eat, sea	eɪ	bay, fade, bait
e	pen, ten, cell	ɔː	saw, also, call	aɪ	buy, hide, bite
i	beat	ɑː	car, father	ɔɪ	boy, void
ʌ	cup, come, us	uː	food, too, yell	əʊ	boat, dough
ɒ	not, gone, got	ɜː	Bird, sir, shirt	aʊ	loud, bout
ʊ	good, look, put	ɑː	hard, part, bar	ɪə	beard, beer
ɪ	hid, bit, lick			ʊə	lure, toured
æ	plan, bad, cat				

Source: Marifatika (2015)

G. Consonants

Consonants are sounds that are produced with a certain degree of obstruction to airflow. According to O'Connor (1980).

> There are two good reasons for beginning with consonants rather than vowels. Firstly, consonants contribute more to make English understood than vowels do. Secondly, consonants are generally made by a definite interference of the vocal organs with the air stream, and so are easier to describe and understand.

In addition, Dardjowidjojo (2009) states that "in the production of the consonant, parts of the mouth involved are the tongue, the lips, the teeth, the tooth ridge, the palate, the velum and the uvula. These are called the points of articulation." Meanwhile, according to Basri (2013), consonant sounds are produced if the airflow is obstructed or impended somewhere in the vocal tract by using one or more articulators. Basri (2013) also specified that there are parameters used to identify consonant sounds. They are voicing, place of articulation, and manner

articulation. The three parameters are important in differentiating the consonant sounds.

Tabel. 3 English Consonants

Consonants (Konsonan)					
p	pack, pen, stop	l	look, leg	ʃ	fish, wish
k	kate, can	n	night, name	ð	this, that
b	big, back	m	mine, mouse	ʧ	chair, rich
f	free, few, fan	r	write, run	ʤ	major, judge
s	vice, sun	v	never, very	ʒ	usual, television
t	try, tell	w	well, win	ŋ	sing, king
d	dig, dot, dog	j	year, new		
g	good, gate	z	size, zoo		

Source: Marifatika (2015)

Table. 4 Arabic Alphabet Consonants

Name	Isolated	Initial	Medial	Final	Transliteration	Sound	Pronunciation
'alif	ا			ـا	' / ā	long unrounded low central back vowel	'a' as in 'father'
Bā'	ب	بـ	ـبـ	ـب	b	voiced bilabial stop	'b' as in 'bed'
Tā'	ت	تـ	ـتـ	ـت	t	voiced aspirated stop	't' as in 'tent'
Thā'	ث	ثـ	ـثـ	ـث	th	voiceless interdental fricati	'th' as in 'think'

						ve	
Jīm	ج	ـج	ـجـ	جـ	j	voiced palatal affricate	'j' as in 'jam'
Ḥā'	ح	ـح	ـحـ	حـ	ḥ	voiceless pharyngeal constricted fricative	only in Arabic; a constricted English 'h'
Khā'	خ	ـخ	ـخـ	خـ	k h	voiceless velar fricative	'ch' as in German 'Bach'
Dāl	د			ـد	d	voiced dental stop	'd' as in 'deer' (approx.)
Dhāl	ذ			ـذ	d h	voiced dental fricative	'th' as in 'there'
Rā'	ر			ـر	r	voiced dental trill	'r' as in 'run' (approx.)
Zāy	ز			ـز	z	voiced dental sibilant	'z' as in 'zoo' (approx.)
Sīn	س	ـسـ	ـسـ	سـ	s	voiceless dental sibilant	's' as in 'sit'
Shīn	ش	ـشـ	ـشـ	شـ	s h	voiceless palatal sibilant	'sh' as in 'shut'

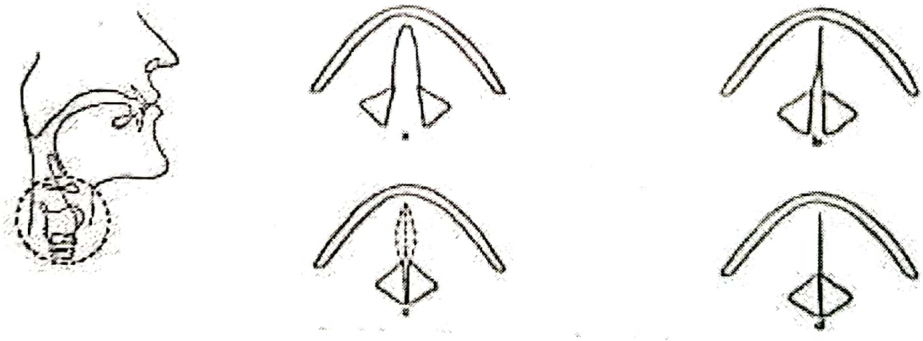
Ṣād	ص	صـ	ـصـ	ـص	ṣ	voiceless post-dental sibilant emphatic	the counter part of *Sīn*; all the 'emphatics' are pronounced with the back of the tongue slightly raised
Ḍād	ض	ضـ	ـضـ	ـض	ḍ	voiced post-dental emphatic stop	the counterpart of *Dāl*
Ṭā'	ط	طـ	ـطـ	ـط	ṭ	voiceless post-dental emphatic stops	the counterpart of *Tā'*
Ẓā'	ظ	ظـ	ـظـ	ـظ	ẓ	voiced post-interdental emphatic fricative	the counterpart of *Dhāl*
ᶜayn	ع	عـ	ـعـ	ـع	c	voiced pharyngeal fricative	purely Arabic -- a constriction of the throat and an expulsion of the breath with the vocal cords vibrating

Ghayn	غ	غـ	ـغـ	ـغ	gh	voiced uvular fricative	close to a French 'r' as in 'Paris' -- like a gentle gargling
Fā'	ف	فـ	ـفـ	ـف	f	labio-dental voiceless fricative	'f' as in 'free'
Qāf	ق	قـ	ـقـ	ـق	q	voiceless unaspirated uvular stop	'k' in the back of the throat; compare 'cough' with 'calf'
Kāf	ك	كـ	ـكـ	ـك	k	voiceless aspirated palatal or velar stop	'k' as in 'king'
Lām	ل	لـ	ـلـ	ـل	l	voiced dental lateral	'l' as in 'lift'
Mīm	م	مـ	ـمـ	ـم	m	voiced bilabial nasal	'm' as in 'moon'
Nūn	ن	نـ	ـنـ	ـن	n	voiced dental nasal	'n' as in 'net'
Hā'	ه	هـ	ـهـ	ـه	h	voiceless glottal fricative	'h' as in 'house'
Wāw	و			ـو	w	voiced bilabial glide	'w' as in 'wonder'
Yā'	ي	يـ	ـيـ	ـي	y	voiced palatal glide	'y' as in 'yellow'
Hamza	ء				'	voiceless glottal stop	not a phoneme in English but found in some exclamations --

							e.g., 'oh-oh'

1. Voicing

According to Ladified (2011), sounds that are produced when the vocal cords are vibrating are said to be voiced, as opposed to those in which the vocal cords are apart, which are said to be voiceless. Keindler (2004) adds that voicing occurs when the vocal cords are vibrating during the same articulations. By having the two quotations above, it can be concluded that voicing is referring to the auditory result of the vibration of vocal cords. Also voiced consonants are produced when the vocal cords vibrate, while voiceless consonants are produced when the vocal cords are not vibrating.



2. Place of Articulation

Katamba (1997) states that place of articulation is a point which the airstream can be modified to produce a different sound. Rogers (2000) points that the place of articulation is the description of where the obstruction occurs in the vocal tract. Therefore, we can conclude that place of articulation is one of the main parameters used in the classification of speech sounds, referring to where in the vocal tract a sound is produced. According to Basri (2013), the articulators that are involved in producing speech sounds are as follows:

1. Labial

Labial is how the lips come together when producing the first sound. There are a few sounds that can be produced by the lips, the front articulators. The sounds produced are called bilabial. /p/, /b/, /m/, and /w/ are bilabial sounds because when those sounds are produced the two lips come together. Meanwhile, when the lower lip is raised until it nearly touches the upper front teeth the resulting sounds are called labiodentals. /f/ and /v/ sounds are labiodentals.

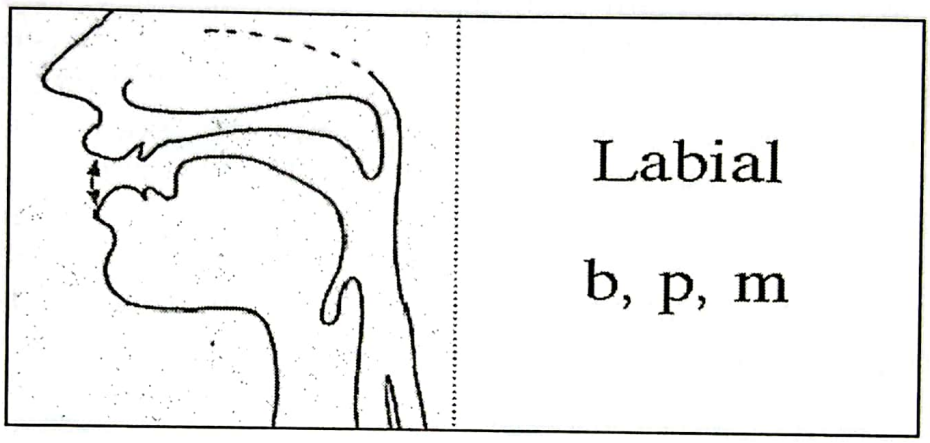


Figure 3 Bilabial

2. Dental

When the tongue is placed against the teeth, sounds made in this way are called dentals. Meanwhile, if the tongue is placed between the teeth the sound is said to be interdental. In the International Phonetic Alphabet (IPA), the voiced and voiceless interdental consonants are symbolized as /θ/ and /ð/.

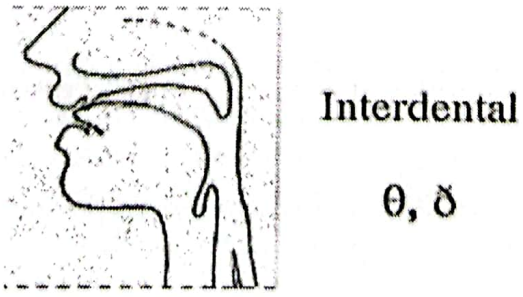


Figure 4 interdental

3. The sound /θ/

As what has been mentioned before that the /θ/ sound is one of the interdental sounds. Kreidler (2004)states that the /θ/ is articulated with the tip of the tongue near or lightly touching the upper teeth so that the air is squeezed out between the tongue and teeth. In terms of voicing Vizental (2008) verify that the vocal cords do not vibrate when the /θ/ sound is pronounced. Therefore, according to both quotations above we can conclude that the /θ/ sound is voiceless interdental sound.

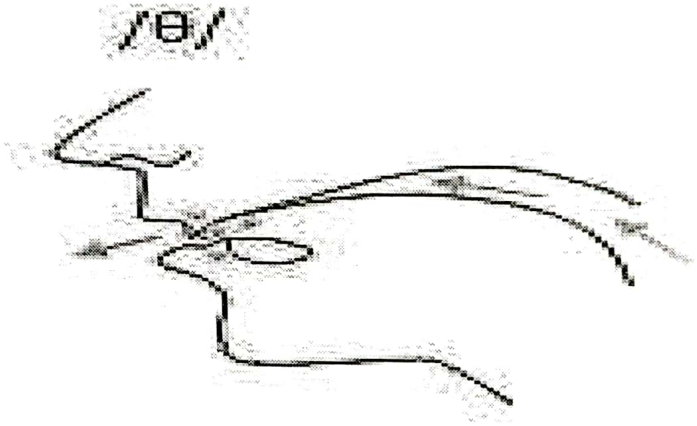


Figure 5 The sound /θ/

Based on the picture above it can be presumed that the voiceless interdental sound can be found in initial, medial, and final word position. Below is the table of the sound /θ/ distribution in some English words.

Table 5. List of the sound /θ/

Word-initially	Word-medially	Word-finally
thigh /θaɪ/	ethnic /ɛθnɪk/	breath /brɛθ/
thief /θif/	method /mɛθəd/	length /lɛŋkθ/
theme /θim/	bathtub /bœθtʌb/	month /mʌnθ

thesis /θisɪs/	athlete /æθlit/	teeth /ti:θ/
thread /θrɛd/	bathroom /bæθrum/	faith /feɪθ/
therapy /θɛrəpi/	toothpick /tuθpɪk/	myth /mɪθ/

4. The sound /ð/

One other interdental sound in English is the sound /ð/. To produce this sound the position of the tongue is still the same as the /θ/ sound, where the tip of the tongue is touching the inner side of the lower front teeth and the blade touching the inner side of the upper teeth. In pronouncing this sound, the air escapes through the gaps between the tongue and teeth with an audible friction. The difference is only in terms of voicing. Vizental (2008) claims that in articulating the /ð/ sound the vocal cords are drawn together and vibrate. Below is a picture of the tongue in producing the /ð/ sound.

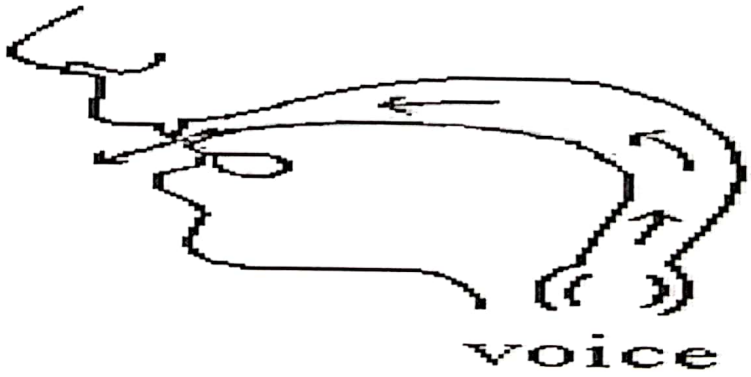


Figure 6. The sound /ð/

By seeing the picture, we can say that voiced interdental sound is articulated when the position of the tongue is between the upper and lower teeth and the vocal cord is vibrating. The voiced interdental sound also appears in the initial, medial, and final position of English words. The chart below shows the distribution of the /ð/ sound

Table 6. The Distribution of the sound /ð

Word-initially	Word-Medially	Word-finally
thus /ðʌs/	either /'iðər/	breathe /brið/
therefor /ðɛərfɔr/	mother /mʌðər/	soothe /suð/
than /ðœn/	gather /gœðər/	mouth/maʊð/
the /ðə/	neither /niðər/	clothe/kloʊð/
their /ðər/	further /fɜrðər/	bathe /beɪð/
this /ðɪs/	other /ʌðər/	lathe /leɪð/

adapted from Karakas and Sönmez (2011).

The English interdental sounds have become a problem for students in Indonesia. The reason is that those sounds do not exist in the sound system of Bahasa Indonesia. As stated by Kayaoğlu and Çaylak (2013) that inter-dental fricatives are not existent in most of the world's languages. Therefore, we can conclude that there is no interdental sound in Bahasa Indonesia. To support the statement, the following table is showing the differences between English and Bahasa Indonesia's phonemes.

Table 7. The Difference of English' and Bahasa Indonesia's phoneme
Consonant Phonemes

No.	English	Example	Bahasa Indonesia	Example
1	/p/	Pet	/p/	Paku
2	/b/	Bed	/b/	Bantal
3	/t/	Tail	/t/	Tikus
4	/d/	Door	/d/	Pintu
5	/k/	Kite	/k/	Kursi
6	/g/	Gate	/g/	Galon
7	/m/	Marble	/m/	Malam

8	/n/	Night	/n/	Nanas
8	/ŋ/	Sing	/ŋ/	Minggu
9	/f/	Fly	/f/	Maaf
10	/v/	Violets	-	
11	/θ/	Think	-	
12	/ð/	Them	-	
13	/s/	Snake	/s/	Siang
14	/z/	Zoo	/z/	Lazim
15	/ʃ/	Shoulder	/ŝ/	Shadat
16	/ʒ/	Pleasure	-	
17	/h/	Horse	/h/	Hari
18	/ʧ/	Future	/c/	Cacat
19	/ʤ/	Journalist	/j/	Jajan
20	/l/	Lion	/l/	Lekas
21	/r/	Ring	/r/	Raih
22	/ʔ/		/ʔ/	Jum'at
23	-		/ɲ/	

After seeing the table above, we can see that the Indonesian sound /c/ and /j/ as in *"cacat"*and *"jajan"* are not the same as the English /ʧ/ and /ʤ/ as in *"future"* and *"Journalist"*

5. Alveolar

When the tongue may touch or be brought near the alveolar ridge

which is a small protrudes from just behind the upper front teeth. Sounds that are produced in this area are called alveolar sounds. The /t/, /d/, /s/, /z/, /l/, /r/, and /n/ are alveolar consonants.

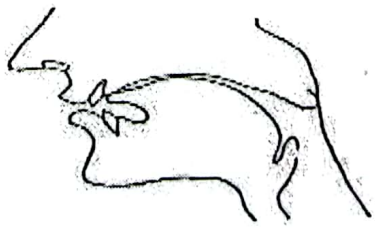


Figure 7. Alveolar (adopted from Roach (2009))

6. Alveopalatal

When the tongue is placed just behind the alveolar ridge, where the roof of the mouth rises sharply, the sounds articulated are called alveopalatal sounds. English sounds produce in this area are /ʃ/, /ʒ/, /ɻ/, and /ʤ/.

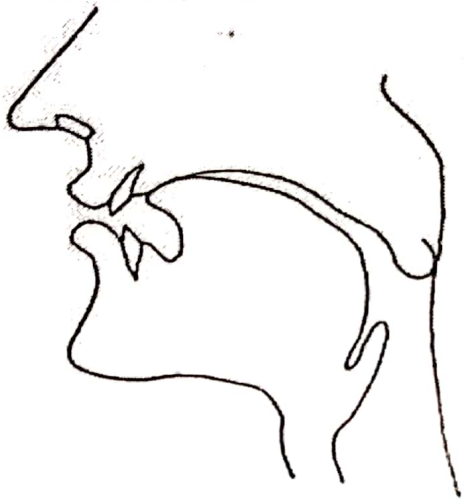


Figure 8. Alveopalatal (adopted from Roach (2009))

7. Palatal

Palatal sounds are produced when the tongue touches the highest part of the roof of the mouth called the palate. In English, this sound can be found in the initial of a word like *yes, you, young, yet,* etc.

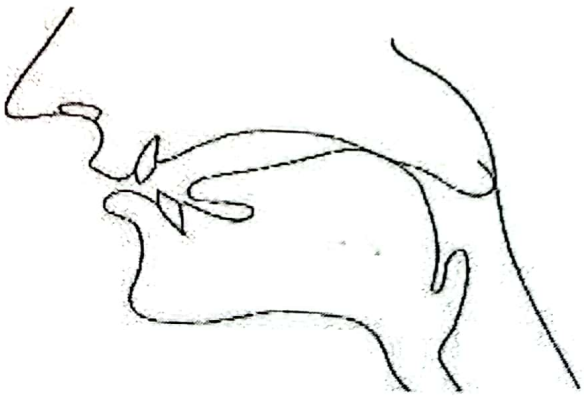


Figure 9. Palatal

8. Velar

The soft area towards the rear of the roof of the mouth is called velum. When the tongue touches the velum, this position is called velar. There are three velar sounds in English; they are /k/, /g/, and /ŋ/.

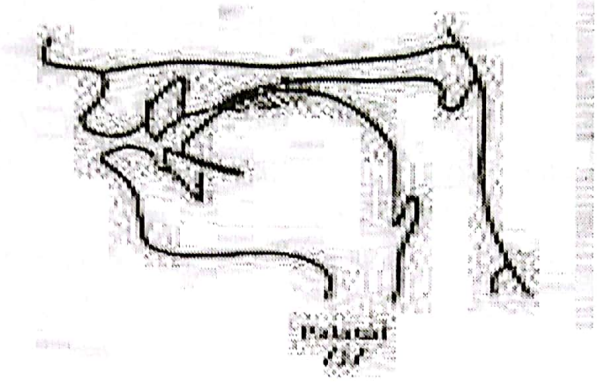


Figure 10. Velar (adopted from Roach (2009))

9. Glottal

Sounds that are produced using the vocal folds as the primary articulators are called glottal. In English, there are two glottal sounds. Those sounds are the glottal stop /ʔ/ and the glottal fricative /h/.

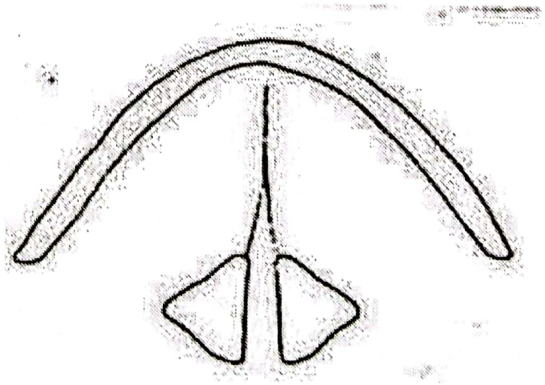


Figure 11. Glottal

3. Coronal Sound

Coronal sounds are sounds that are made with the tongue raised towards the front teeth, the alveolar ridge, or palate. Basri (2013)states "coronal refers to the segment produced by raising the tip or blade of tongue from its neutral

position." There are thirteen coronal sounds. They are;/θ/, /ð/, /t/, /d/, /n/, /r/, /l/, /s/, /z/, /ʃ/, /ʒ/, /tʃ/, /dʒ/. However, in this research, the researcher will only focus on nine sounds. They are /θ/, /ð/, /t/, /z/, /ʃ/, /ʒ/, /tʃ/, /dʒ/, and /r/.

There are a few reasons why the researcher chooses those nine sounds. Firstly, the /θ/ and /ð/ are two of some phonemes which do not exist in the phonological system of Bahasa Indonesia. Secondly, the English'sphonemes which have similarity to Bahasa Indonesia's are /tθ/ and /dʒ/. In terms of place and manner of articulation, the phoneme /tʃ/ and /dʒ/ are affricate-alveopalatal. Meanwhile, the phoneme /c/ and /ɟ/ are stop- palatal. Thirdly, the other English's phonemes having similarity to Bahasa Indonesia's are /ʃ/ and /r/. The phoneme /r/ in English is pronounced unclear such as word *"ribbon"*. Meanwhile, the phoneme /r/ in Bahasa Indonesia is pronounced clearly such in word *"dorong"* /do. roŋ/. The phoneme /ʃ/ exist in such word *"shirt" while* in Bahasa Indonesia the phoneme /ŝ/ can be found in such word *"syahadat"* /ŝa.ha.dat/. Lastly, the phoneme /z/ and /ʒ/, the phoneme /z/ exist in Bahasa Indonesia but it only occurs initially in such word *"zaman"* /zaman/while in English the phoneme /z/ can occur initially, medially, and finally such in words *"zoo"* /zu:/, *"noisy"* /ˈnɔɪzi/, and *"cheese"* /tʃi:z/.

The phoneme /ʒ/ in such word *"usually"*/ˈju:ʒʊəli/do not exist in Bahasa Indonesia. Thus, the non-existence of some English coronal sounds leads students to a pronunciation error.

4. Manner of Articulation

According to Katamba (1997)when the lips, tongue, velum, and glottis can be positioned in different ways to produce different sound types, these are called the manners of articulation. Basri (2013) states that "manner of articulation (how the sounds are produced), speech sounds can be divided into six groups; they are stops, nasals, fricatives, affricates, liquids, and glides." Stop sounds are produced if the air stream stops for a moment before it is released. The

air stream stops because the articulators are closed completely. In English there are eight stop sounds; they are /p/, /b/, /t/, /d/, /k/, and /g/.

Moreover, nasal sounds are produced the same way as for stop sounds. The difference is when producing the nasal sounds, part of the airflow is released through the nasal cavity while in producing the stop sounds, and the entire airflow is released through the oral cavity. The nasal sounds in English are /m/, /n/, /ŋ/.

In producing fricative sounds, the articulators form a narrow opening through which the airflow escapes. Because the opening is not big enough, the airflow causes friction at the time it passes through the opening. The fricative sounds in English are /f/, /v/, /θ/, /ð/, /s/, /z/, /ʃ/, /ʒ/, and /h/. Furthermore, affricate sounds are a combination of stop and fricative sounds because when it is produced the beginning of the sound is like stop and end up like fricatives. There are two affricates in English which are, /tʃ/ and /dʒ/.

In addition, liquid sounds are produced by pushing the airflow out of the mouth through the lower parts of both sides of the tongue. In English, the liquid sounds are /l/ and /r/ belonging to lateral and retroflex liquid. Lastly, glides are usually called semi- vowel because they ate almost like vowels in terms of the manner of articulation. In producing them the airflow escapes through the oral cavity almost without any obstruction. The glides sounds are /w/ and /y/.

To make it clear the following is the chart of English consonants.

Table2. 8. The chart of English consonants

Manner of Articulation	Place of Articulation							
	Bila- bial	Labio- dental	Dental	Alve- olar	Alveo- palatal	Palatal	Velar	Glottal
(Oral) Stop	*p b*			*t d*			*k g*	*ʔ*

Nasal (Stop)	n				n			ŋ
Fricative	f		θð		s z	ʃʒ		
	v							
Affricate						tʃdʒ		
Lateral Liquid					l			
Retroflex Liquid					r			
Glide	(w)						y	w
Flap			r (ɒ)					

(Source: Basri (2013))

H. Supra-segmental Level

Other than knowing the segmental level, it is also important to know about supra-segmental level. Gilakjani (2012)assert, "supra-segmental features relate to sounds at the macro level." In addition, Jenkins (2002)emphasizes that effective communicative pronunciation competence can be achieved more through improving supra-segmental production in preferences to segmental. Burns (2003)states that linking, intonation, and stress are important features for effective pronunciation at the supra-segmental level.

According to Gilakjani (2012)"linking refers to the way last sound of one word is joined to the first sound of the next word. "Additionally, Osowski (2012)defines, "linking means that two words are said as one." Based on both quotations it can be defined that linking as a word in a sentence does not always sound the same when we say them individually. Furthermore, Gilakjani (2012)states that there are three types of linking which are consonant to vowel, consonant to consonant, and vowel to vowel.

Moreover, according to Burns and Claire (2003)"intonation can be thought of as a melody of the language, the way the voice goes up and down according to the context and meanings of the communication." Kreidler (2004)adds that intonation is the patterned way in which the pitch of the voice changes in the utterance. Therefore, we can conclude that intonation is very important in speakers' conversation because it helps the speakers to express the meanings of words or sentences more clearly.

In relation to intonation is stress. According to Katamba (1997), stress is a cover term for the combined effects of pitch, loudness, and length. Yates (2002)also divides stress into three different levels which are word level, sentence level, and contrastive stress. In word level, multisyllabic words have one or more syllables that are stressed, in sentence level, the most important words tend to be stressed, while contrastive stress is the most important words carry greater stress.

I. Computer Software Assisted Pronunciation Training

Computer technology has been used for language learning and teaching since the 1960s. However, the use of computers as language learning and teaching has gained more importance only in the last decade or so. As states by War Schauer and Healey (1998):

> A decade ago, the use of computers in the language classroom was of concern only to a small number of specialists. However, with the advent of multimedia computing and the Internet, the role of computers in language instruction has now become an important issue confronting large numbers of language teachers throughout the world.

Learners need chances to listen to their own speech meanwhile listening to one's own speech while speaking is not possible. As a result, it is suggested that learners exercised on their recorded voices so that the voices can

be reviewed objectively. Therefore, computer technology makes recording and comparing quite convenient (Gilakjani, 2012). Where the computer is not seen as a substitute for a teacher, schools may provide a smaller, more limited, but more flexible software that individual teachers will use as an add-on to instruction. According to Warschauer and Healey (1998), the benefits of adding a computer component to language instruction are many, and they are:

1. Multimodal practice with feedback
2. Individualization in a large class
3. Pair and small group work on projects, either collaboratively or competitively.
4. The fun factor
5. Variety in the resources available and learning styles used
6. Exploratory learning with large amounts of language data

In addition, Zhang (1998) adds that computer and technology can be successfully incorporated into a teaching curriculum. A technology of this kind allows the learners to take risks and follow their own path without the scrutiny of the teacher. It also allows the native speaker model readily available in proper context at any time.

J. What is Accent Reduction Software?

Accent reduction software is a kind of unaccented software in teaching pronunciation. This software can be a simple tool as a medium to solve a pronunciation problem. This media focuses on the use of multimedia and Internet. It combines text, sound, and images in presentation. It also allows interaction between individual language learners. The advantage of this medium includes provide learners more independence from classrooms and allowing learners the option to work on their learning material at any time of the day.

Cheng (2006) proposes eight advantages of using this software. Those are (a) prove practices for students through

the experiential learning, (b) offer students more learning motivation, (c) enhance student achievement, (d) increase authentic materials for study, (e) emphasize the individual needs, (f) regard independence from a single source of information, and (g) enlarge global understanding. Computer's technology can provide a lot of fun games and communicative activities, reduce the learning stresses and anxieties, and provide repeated lessons as often as necessary.

K. Teaching Coronal Sounds by Using Accent Reduction Software

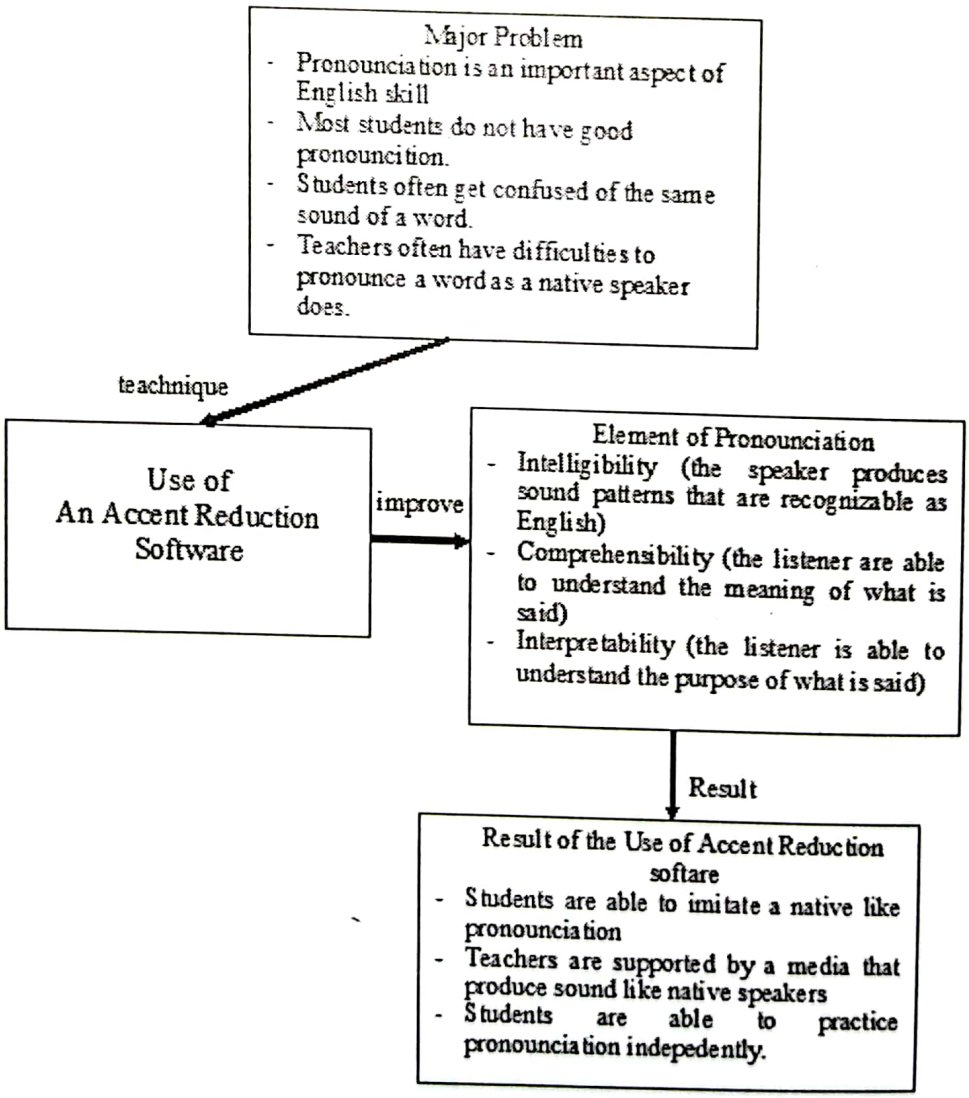
Accent Reduction Software is software that helps in teaching pronunciation. This software can be a simple tool as a medium to solve pronunciation problem. By using Accent Reduction Software, we can obtain some gains such as transcription of a word and the audio. There are some steps below from the basic stages in applying Accent Reduction Software as follows:

1. The teacher gives warm-ups to the students and motivates them. The teacher also greets the students then get ready for the lesson.
2. Teacher starts to introduce the sounds to the students.
3. The teacher provides a corpus with vocabulary that is commonly misarticulated for the non-native students.
4. The students are asked to pay attention to the topic.
5. The students are asked to look the word up in the accent reduction software, choose the sounds and practice their pronunciation.
6. Students compare the sound of their own and the sound of the native speaker.
7. Students see how each sound is made through detailed side views of the human mouth.
8. The teacher summarizes the lesson as an effective way for an easy recall.

L. Theoretical Framework

Pronunciation is an important aspect of English skill because without the ability to produce a correct sound of a word. This will cause confusion in a speaking activity. Currently, limited students have good English pronunciation because most of English teacher neither have good English pronunciation that can be imitated by students. This situation requires a new media in teaching English pronunciation. Therefore, this research will use an accent reduction software in teaching pronunciation to students as depicted in figure 1. Theoretical framework as follows.

Figure 12. Theoretical Framework



Based on the above theoretical framework diagram the use of an accent reduction in teaching English pronunciation will improve students' pronunciation in three elements of pronunciation. Those elements are included Intelligibility (the speaker produces sound patterns that are recognizable as English), comprehensibility (the listener can understand the meaning of what is said), and interpretability (the listener is able to understand the purpose of what is said). The final output of the use of the accent reduction software are students can imitate a native-like pronunciation, teachers are supported by a media that produce sound like native speakers, and students are able to practice pronunciation independently.

M. Hypothesis

The researcher formulated the hypothesis of the research as follows: Implementing Accent Reduction Software as a medium can improve the pronunciation ability of English and Arabic Department Students of IAIN Palu.

CHAPTER III
RESEARCH METHOD

A. Research Design

In conducting this research, the researcher employed quantitative method in the form of quasi-experimental research design, specifically non-equivalent control group design. This experimental design has two classes which are the experimental and control group. In experimental group, the researcher applied her treatment in using Accent Reduction Software to improve students' pronunciation. While in control group the researcher did not apply her treatment using the software. According to Cresswell (2005)that individuals in the experimental group receive the experimental treatment, while those in the control group do not. Both of this group will be given a pre-test and a post-test. Then the researcher will compare both groups' ability in pronouncing the words. The design of this research is adopted from Cohen, Manion, and Morrison(2005)as follows:

$$\frac{O1 \quad X \quad O2}{O3 \qquad O4}$$

Where:

01: Pre-test of experimental class (English and Arabic)

02: Post-test of experimental class (English and Arabic)

03: Pre-test of control class (English and Arabic)

04: Post-test of control class (English and Arabic)

X: Treatment of experimental class (English and Arabic)

B. Population and Sample

1. Population

The population of this research was the first year of English and Arabic Department Students of UIN Datokarama Palu. There were 3 classes of Arabic and 5 classes of English students, but only two classes from each department\t (Arabic and English) were taken for this study purpose. Each class from each department was used for experimental class, and another two classes were used as the control class. Each class consists of 20 students

2. Sample

In taking the sample, the researcher used cluster random sampling technique. In choosing the class the researcher wrote down the name of each classroom in some small pieces of paper, folds them and shook the pieces of paper in a box. Then, the researcher took two of the folded papers as her experimental classes and two classes for control classes. All samples were 40 students who comprised of 20 students from English department and 20 students from Arabic department.

C. Research Variable

This research has two variables, and they are called dependent and independent variable. Dependent variable is a variable that is measured by the researcher to

found out the effect of the independent variable. Meanwhile, independent variable is a variable that can be selected and manipulated by the researcher. In this research the dependent variable was the English and Arabic department students' pronunciation ability while the Accent Reduction Software was the medium that will be implemented by the researcher to increase the pronunciation.

D. Technique of Data Collection

Technique of data collection is a way to get the data accurately to support this research. In this research, the researcher employed performance assessment where the students were told to read aloud words provided while the researcher records the students' voice. Additionally, the researcher gave a written test for the students.

1. Test

In this research, the researcher conducted an oral test. Pre-test and post-test were conducted to both experimental and control groups. This intended to collect data of the students during the research.

a) Pre-test

The pre-test was given to grade eight students to find out the student's ability in pronouncing the English words before they were given the treatment by using the accent reduction software. The pre-test was given to both experimental and control class.

b) Post-test

In this research, the researcher gave the post-test to students in both experimental and control groups. She gave the post-test to find out the ability of the students in pronouncing English coronal sounds after they have been given the treatment.

Table 3.1 Pronunciation Skill Scoring Rubrics

Aspek	Keterangan	Skor
Pelafalan huruf	• Sangat jelas sehingga mudah dipahami • Mudah dipahami meskipun pengaruh bahasa ibu dapat dideteksi • Ada masalah pengucapan sehingga pendengar perlu konsentrasi penuh • Ada masalah pengucapan yang serius sehingga tidak bisa di pahami	4 3 2 1
Pelafalan kata	• Tidak ada atau sedikit kesalahan tata bahasa • Kadang-kadang ada kesalahan tetapi tidak mempengaruhi makna • Sering membuat kesalahan sehingga makna sulit dipahami • Kesalahan tata bahasa sangat parah sehingga tidak bisa dipahami	4 3 2 1
Kelancaran	• Sangat lancar • Kelancaran sedikit terganggu oleh masalah bahasa • Sering ragu-ragu dan terhenti karena keterbatasan bahasa • Bicara terputus-putus dan terhenti sehingga percakapan tidak mungkin terjadi	4 3 2 1

The scoring formula will be:

$$NA \frac{Skor\ Perolehan}{Skor\ Maksimal}\ x\ 1$$

2. Treatment

The researcher gave the treatment to the experimental group while the control group will be taught by using the conventional method that is usually used by the English

teacher in teaching pronunciation. The treatments were conducted for twelve meetings. The meetings were included two meetings for pre-test and [ost-test, and ten meetings for treatment. Samples of treatment teaching were presented in the following table 3.4 as follows:

Table 3.4 Teaching Outline

Meeting	Topic	activities	
		Teacher	Students
1st	What is coronal sound?	1. Show the students all variants of coronal sounds 2. Ask the students to pronounce the sound correctly one by one together. 3. Correct the student's pronunciation 4. Distribute some words that contain coronal sounds, and ask the students to pronounce the words 5. Ask the students to find the words in the accent reduction software to show the correct pronunciation	1. Pay attention to the teacher. 2. Try to pronounce the sounds one by one together. 3. Correct their pronunciation. 4. Look at the paper that has been distributed by the teacher. 5. Search the words in the software. 6. Search the words, look at the

		6. Ask the students to look at the transcription and click on the speaker symbol to listen to the correct pronunciation 7. Listen to the audio in the software, and directly ask the students to pronounce the correct pronunciation 8. Ask the students to repeat the sounds	transcription, click on the speaker symbol, and listen to how to pronounce them. 7. Pronounce the words after they listen to the audio in the software. 8. Repeat the sounds.
2nd	Things to do sound/t/and/ d/	1. Introduce to the students how to produce the sound /t/ and /d/ 2. Show the students some words that contain /t/ and /d/ sounds, and ask them to pronounce the sounds one by one 3. Correct the student's mispronunciati on 4. Ask the students to find the words in accent	1. Listen to the teacher's explanation. 2. Look at the material that has been distributed and pronounce the sounds one by one. 3. Correct their mispronunciati on by pronouncing the word a few times 4. Search the words in accent reduction software.

		reduction software to see the correct pronunciation. 5. Ask the students to look at the transcription and click on the speaker symbol to hear the correct pronunciation 6. Listen to the audio in the software then ask the students to pronounce the correct pronunciation	5. Search for the words, look at the transcription and click the speaker symbol, then listen to the correct pronunciation 6. Directly pronounce the words after they listen to the audio in the software
3rd	The Sign of Four Sound /θ/ and /ð/	1. Gives student warmups and motivation 2. Review the previous material. 3. Provide a corpus of /θ/ and /ð/ sound. 4. Asks the students individually to pronounce the words in the corpus. 5. Explain the unknown vocabulary 6. Show and practice the minimal pairs of sound /θ/	1. Paying attention to the teacher 2. Paying attention to the teacher's Explanation. 3. Look at the corpus that has been provided 4. Pronounce the words in the corpus 5. Pay attention to the unknown vocabulary 6. Practice the minimal pairs 7. Doing the exercise and drilling

		and /ð/ 7. Give the students further exercise and drilling 8. Leads the students to conclude the material orally 9. Gives assignment to the students	8. Draws conclusion orally 9. Taking the assignment
4th	My Childhood Sound /z/	1. Introduce on how to produce the sound /z/ 2. Distribute some words that contains /z/ sound, then ask the students to pronounce each word. 3. Show students' pronunciation error. 4. Ask the students to find the words in the accent reduction software to show the correct pronunciation. 5. Ask the students to look at the transcription and click on the speaker	1. Listen to the teacher's explanation 2. Look at the paper that has been distributed by the teacher, then pronounce each word 3. Pay attention to their pronunciation error. 4. Search the words in the accent reduction software. 5. Look at the transcription, click on the speaker symbol, then listen to the correct pronunciation. 6. Directly pronounce the words after they listen to the audio in the

		symbol to listen to the correct pronunciation. 6. Directly ask the students to pronounce the correct pronunciation	accent reduction software
5th	Guitar Sound /ʃ/ and /ʒ/	1. Introduce on how to produce the sound /ʃ/ and /ʒ/ 2. Distribute some words that contains /ʃ/ and /ʒ/ sounds, then ask the students to pronounce each word 3. Show students' pronunciation error. 4. Ask the students to find the words in the accent reduction software to show the correct pronunciation. 5. Ask the students to look at the transcription and click on the speaker symbol to listen to the correct pronunciation.	1. Listen to the teacher's explanation 2. Look at the paper that has been distributed by the teacher, then pronounce each word 3. Pay attention to their pronunciation error. 4. Search the words in the accent reduction software. 5. Look at the transcription, click on the speaker symbol, then listen to the correct pronunciation. 6. Directly pronounce the words after they listen to the audio in the accent reduction software

		6. Directly ask the students to pronounce the correct pronunciation	
6th	My uncle is a zookeeper Sound tʃ/, /dʒ/, and /r/.	1. Introduce on how to produce the sound tʃ/, /dʒ/, and /r/ 2. Distributed a running commentary text that contain some words which are /tʃ/, / dʒ/, and /r/ sounds, and ask the students to read the text 3. Asked the students to find some words that contain sound /tʃ/, / dʒ/, and /r/ in the text and asked them to make a list, then pronounce the words. 4. Ask the students to find the words in the accent reduction software to show the correct pronunciation. 5. Ask the students to look at the	1. Listen to the teacher's explanation 2. Look at the paper that has been distributed by the teacher and read the text 3. Find some words that contain sound /tʃ/, / dʒ/, and /r/ in the text, made a list and tried to pronounce them. 4. Search the words in the accent reduction software 5. Look at the transcription, click on the speaker symbol, then listen to the correct pronunciation 6. Directly pronounce the words after they listen to the audio in the software

		transcription and click on the speaker symbol to listen to the correct pronunciation 6. Listen to the audio in the software then directly ask the students to pronounce the word	

E. Technique of Data Analysis

The data collected through test were analyzed by employing simple statistic. The researcher computed the individual score by using the formula proposed by Arikunto (2006)as follows:

$$\sum \frac{X}{N} x\ 100\%$$

Where:

∑ : Standard Score

X : Obtained Score

N : Maximum Score of the test

100 : Constant Number

The researcher also used the five scale percentage categories of individual student's ability. The following five scale percentage category was adopted from Nurgiantoro (1995).

Table 9
The scale of percentage categories

Level	Categories
85% - 100%	Very Good
75% - 84%	Good
60% - 74%	Fair
40% - 59%	Poor
0% - 39%	Very Poor

The researchers calculated the mean score of both experimental and control group. The researcher used the formula as proposed by Arikunto (2006).

1. The formula uses for experimental group

$$M\ x = \frac{\sum x}{N}$$

2. The formula uses for control group

$$M\ y = \frac{\sum y}{N}$$

Where:

Mx : Mean score of experimental groups

My : Mean score of control group

$\sum x$: Sum scores of experimental groups

$\sum y$: Sum scores of control group

N : Number of students in each group

The researcher computes the square deviation score for both experimental and control group by using formulas proposed by Arikunto (2006)which are as follows:

1. The formula for experimental group

$$\sum X^2 = \sum x^2 - \frac{(\sum x)2}{n}$$

2. Formula for control group

$$\sum Y^2 = \sum Y^2 - \frac{(\sum Y)2}{n}$$

Where:

$\sum X^2$: The square deviation sum of experimental group

$\sum Y^2$: The square deviation sum of control group

$\sum X$: The sum score of experimental groups

$\sum Y$: The sum score of control group

N : The total number of students

To find out the result of the test that was given by the researcher, she applied t-test formula to show whether there is an effect of the treatment that was using accent reduction software for experimental group in enhancing the students' ability in pronouncing English coronal sounds. The formula used was proposed by Arikunto (2006) as follows:

$$t = \frac{Mx - My}{\frac{\sqrt{(\sum X2 + \sum Y2)}}{Nx + Ny - 2}\left(\frac{1}{Nx} + \frac{1}{Ny}\right)}$$

Where:

t : significance difference between experimental and control groups

Mx : Mean of experimental group

My : Mean of control group

$\sum X^2$: The total square of experimental group

$\sum Y^2$: The total square of control group

Nx : The toral number of experimental groups

Ny : The total number of control group

After the treatments were completed and post-test was given, the researchers also conducted a survey to find out the student's perception on the use of soft reduction software during the treatment classes. The survey was developed based on six variables which are performance expectancy (PE), effort expectancy (EE), external influence (EI), quality of services (QoS), personal innovativeness (PI), and intention to use accent reduction software (Ito ARS). The questionnaire for our study is attached in the appendices of this research report.

F. Testing Hypothesis

The researcher tested the hypothesis to find out whether the implementation of Accent reduction software can improve the ability of grade eight students' pronunciation of English coronal sounds, and to find out whether the hypothesis would be accepted or rejected. The criteria of testing hypothesis are; if the t-counted is higher than the t-table, it means that the hypothesis is accepted. In other words, the application of accent reduction software is effective to enhance students' ability in pronouncing the English coronal sounds. In the other way, if the t-counted is lower than the t-table, the hypothesis is rejected or there is not significant influence on the students' achievement in pronouncing the English coronal sounds.

CHAPTER IV
FINDINGS AND DISCUSSIONS

A. Result of the test

In collecting the data, there were two kinds of test used by the researcher, which were pre-test and post-test. Both experimental and control groups were given the test. The researcher applied the pre-test before doing the treatment to find out the students' ability in pronunciation especially coronal sounds. Meanwhile, the post-test was given after the treatment to know the impact of implementing Accent Reduction Software that was applied during the treatment.

The test used in this research was pronouncing some single words. There are nine sounds used in the test, they are /θ/, /ð/, /t/, /z/, /ʃ/, /ʒ/, /tʃ/, /dʒ/, and /r/. Each sound consists of three words, and the students are scored 1 if they can pronounce the words correctly. Therefore, the maximum score of this test was 30.

1. Pre-test

Before conducting the treatment, the researcher

conducted pre-test to the experimental group in June 29th2021 and June 30th2021 to the control group. The researcher conducted the pre-test to measure students' ability in pronunciation before the experimental group was treated with a pronunciation medium which was the Accent Reduction Software, and the control class was treated with a conventional pronunciation

method commonly applied in the school. The raw score is obtained by counting how many correct pronunciations the students got. Meanwhile, the standard score is obtained by dividing the students' score with the maximum score then times it by one hundred. The pre-test result of both groups can be seen in table 4.1 and 4.2.

Table 4.1

The result of pre-test in experimental group

No	Student Initials	Departments	Scores	
			Raw Scores (0-30)	Standard (0-100)
1	AMH	English	18	60.0
2	RAS	English	11	36.7
3	ZAS	English	23	76.7
4	BUD	English	18	60.0
5	DAR	English	18	60.0
6	TAR	English	15	50.0
7	ESI	English	14	46.7
8	CSA	English	16	53.3
9	DPA	English	16	53.3
10	MDII	English	11	36.7
11	FDA	Arabic	17	56.7
12	GVE	Arabic	17	56.7
13	SAI	Arabic	16	53.3
14	KIP	Arabic	19	63.3
15	LAS	Arabic	17	56.7
16	MES	Arabic	18	60.0
17	MIM	Arabic	15	50.0

18	AKL	Arabic	16	53.3
19	WML	Arabic	15	50.0
20	GMR	Arabic	18	60.0
	Total Score (EX1)			**Σx= 1593,6**

Based on table 4.1, the highest score of the pre-test in experimental group was 80.0 and the lowest score was 36.7. Therefore, only 2 students can pass the test. Most of the students 'score in this class were below the standard score of ≤75. This indicated that the students were having problems in pronouncing some English words and their ability needs to be improved.

After calculating the pre-test score, the researcher then counted the mean score of the students by applying the formula proposed by Arikunto. All the standard scores were added then divided by the number of students. The mean computation can be seen as follows:

$$M\ X\ \frac{\sum x}{N}$$

$$MX = \frac{1593.6}{30}$$

$M_{\text{pre-test}} = 53.12$

By looking at the data above, we can see that the mean score of the pre-test of experimental group was 53.12.

Furthermore, not only did the researcher analyze the pre-test's result of the experimental group, but she also analyzed the pre-test's results of control group. The result of the students' individual score in pre-test can be seen on the table below.

Table 4.2
The result of pre-test in control group

No	Student Initials	Departments	Scores	
			Raw Scores (0-30)	Standard (0-100)
1	AFI	English	10	33.3

2	ANO	English	7	23.3
3	BAK	English	17	56.7
4	AFU	English	17	56.7
5	BAS	English	7	23.3
6	CMF	English	22	73.3
7	DIR	English	17	56.7
8	EYA	English	13	43.3
9	NFK	English	13	43.3
10	YAG	English	18	60.0
11	HYG	Arabic	10	33.3
12	GSU	Arabic	18	60.0
13	IBS	Arabic	16	53.3
14	JSB	Arabic	16	53.3
15	KMU	Arabic	16	53.3
16	MPR	Arabic	13	43.3
17	MAI	Arabic	12	40.0
18	MSM	Arabic	18	60.0
19	MYU	Arabic	18	60.0
20	TLO	Arabic	18	60.0
	Total Score (EX1)			**Σx= 1479.8**

By looking at table 4.2, it can be seen, the result of pre-test of control group showed that the highest score was 73.3, and the lowest score was 23.3. Based on the data, all the students in this class cannot pass the passing grade.

After obtaining the total score, the researcher calculated the mean score of the control group by using the formula below.

$$M\,Y\ \frac{\sum x}{N}$$

$$M\,Y = \frac{1479.8}{30}$$

$M_{\text{pre-test}} = 49.33$

It shows that the mean score of the pre-test of control group was 49.33

2. Post-test

After the researcher applied the Accent Reduction Software ten-time meetings to the treatment in the experimental group and conventional pronunciation method commonly used by teachers in the school in control group, the researchers then administered the post-test to the students of experimental and control groups. The researcher conducted the post-test on March 1st and 5th 2018 in the experimental and control groups. In analyzing the data taken from the post-test, the researcher elaborates the results of the post-test in both experimental and control groups by providing them in the tables below.

Table 4.3
The result of post-test in experimental group

No	Student Initials	Departments	Scores	
			Raw Scores (0-30)	Standard (0-100)
1	AMH	English	25	83.3
2	RAS	English	27	90.0
3	ZAS	English	27	90.0
4	BUD	English	24	80.0
5	DAR	English	25	83.3
6	TAR	English	26	86.7
7	ESI	English	23	76.7
8	CSA	English	28	93.3
9	DPA	English	25	83.3
10	MDII	English	24	80.0
11	FDA	Arabic	25	83.3
12	GVE	Arabic	26	86.7
13	SAI	Arabic	27	90.0
14	KIP	Arabic	27	90.0
15	LAS	Arabic	25	83.3
16	MES	Arabic	21	70.0
17	MIM	Arabic	24	80.0
18	AKL	Arabic	25	83.3
19	WML	Arabic	26	86.7
20	GMR	Arabic	25	83.3

	Total Score (EX1)	Σx= 2563.2

Table 4.3 shows that there were 30 students of the experimental group received post-test. The result on the table showed that the highest score was 100, and the lowest score was 70. From 30 students, there was only one student who could not pass the test. In other words, 29 of 30 students' score were improved. Therefore, the Accent Reduction Software can help students to improve their pronunciation ability in pronouncing coronal sounds.

The researcher then continued computing the mean score of the post-test of experimental group by using formula below.

$$M\ Y\ \frac{\sum x}{N}$$

$$M\ Y = \frac{2563.2}{30}$$

$M_{\text{post-test}} = 85.44$

To sum up, by dividing the total score to the number of the students of the experimental group, it was found out that the mean score of the experimental group was 85.44. The researcher then analyzed the students' score in control group after counting the score of the post-test in experimental group. The result can be seen on table 4.4

Table 4.4
The result of post-test in control group

No	Student Initials	Departments	Scores	
			Raw Scores (0-30)	Standard (0-100)
1	AFI	English	14	46.7
2	ANO	English	12	40.0
3	BAK	English	19	63.3
4	AFU	English	18	60.0
5	BAS	English	12	40.0

6	CMF	English	23	76.7
7	DIR	English	19	63.3
8	EYA	English	15	50.0
9	NFK	English	15	50.0
10	YAG	English	25	83.3
11	HYG	Arabic	14	46.7
12	GSU	Arabic	21	70.0
13	IBS	Arabic	18	60.0
14	JSB	Arabic	18	60.0
15	KMU	Arabic	19	63.3
16	MPR	Arabic	15	50.0
17	MAI	Arabic	16	53.3
18	MSM	Arabic	23	76.7
19	MYU	Arabic	20	66.7
20	TLO	Arabic	18	60.0
	Total Score (EX1)			**Σx= 1773.4**

As written on table 4.4, the highest score of post-tests in control group was 83.3, and the lowest score was 40.0.

After finding out the students' total score, the researcher then calculated the mean score of the post-test by using the formula below.

$$M\,Y\,\frac{\sum x}{N}$$

$$M\,Y = \frac{1773.4}{30}$$

$M_{\text{post-test}} = 59.11$

Therefore, by having the result, it can be obviously seen that the mean score of the control group was 59.11. Based on the data gained by the researcher, the students' score in control group was increased but not as high as the experimental group.

The highest score of the post-test of experimental group was 100 and the lowest was 70, while in control group, the highest score of the post-test was 83.3 and the lowest score was 40.0. Furthermore, the mean score of experimental

groups was 85.44 from 53.12, and the control group was 59.11 from 49.33. Based on the mean score of the two groups, the score of experimental groups increased 32.32%, and control group increased 9.78%. Therefore, the result showed that implementing Accent Reduction Software could improve pronunciation the students of Arabic and English Tadris departments at IAIN Palu to pronounce coronal sounds. The students' scores of the experimental group in the post-test prove this.

3. Deviation

Having calculated the mean score of the students for both pre-test and post-test, the researcher continued analyzing the data by finding out the data of deviation and the square deviation of both experimental and control groups. The results are presented in the following table.

Table 4.5
The result of score deviation of experimental group

No	Initials	Departments	Scores		Deviation (Y) X2 – X1	Square Deviation (X^2)
			Pre-Test (X1)	Post-Test (X2)		
1	AMH	English	60.0	83.3	23.3	543
2	RAS	English	36.7	90.0	53.3	2841
3	ZAS	English	76.7	90.0	13.3	177
4	BUD	English	60.0	80.0	20.0	400
5	DAR	English	60.0	83.3	23.3	543
6	TAR	English	50.0	86.7	36.7	1347
7	ESI	English	46.7	76.7	30.0	900
8	CSA	English	53.3	93.3	40.0	1600
9	DPA	English	53.3	83.3	30.0	900
10	MDII	English	36.7	80.0	43.3	1875
11	FDA	Arabic	56.7	83.3	26.6	708
12	GVE	Arabic	56.7	86.7	30.0	900
13	SAI	Arabic	53.3	90.0	36.7	1347
14	KIP	Arabic	63.3	90.0	26.7	713
15	LAS	Arabic	56.7	83.3	26.6	708
16	MES	Arabic	60.0	70.0	10.0	100

17	MIM	Arabic	50.0	80.0	30.0	900
18	AKL	Arabic	53.3	83.3	30.0	900
19	WML	Arabic	50.0	86.7	36.7	1347
20	GMR	Arabic	60.0	83.3	23.3	543
Total Scores					$\Sigma_x = 969.6$	$\Sigma x^2 = 34702$

Table 6. The result of score deviation of the control group

No	Initials	Departments	Scores		Deviation (Y) X2 – X1	Square Deviation (X^2)
			Pre-Test (X1)	Pos-Test (X2)		
1	AFI	English	33.3	46.7	13.4	180
2	ANO	English	23.3	40.0	16.7	279
3	BAK	English	56.7	63.3	6.6	44
4	AFU	English	56.7	60.0	3.3	11
5	BAS	English	23.3	40.0	16.7	279
6	CMF	English	73.3	76.7	3.4	12
7	DIR	English	56.7	63.3	6.6	44
8	EYA	English	43.3	50.0	6.7	45
9	NFK	English	43.3	50.0	6.7	45
10	YAG	English	60.0	83.3	23.3	543
11	HYG	Arabic	33.3	46.7	13.4	180
12	GSU	Arabic	60.0	70.0	10	100
13	IBS	Arabic	53.3	60.0	6.7	45
14	JSB	Arabic	53.3	60.0	6.7	45
15	KMU	Arabic	53.3	63.3	10	100
16	MPR	Arabic	43.3	50.0	6.7	45
17	MAI	Arabic	40.0	53.3	13.3	178
18	MSM	Arabic	60.0	76.7	16.6	276
19	MYU	Arabic	60.0	66.7	6.7	45
20	TLO	Arabic	50.0	60.0	10	100
Total Scores					$\Sigma_x = 300.1$	$\Sigma x^2 = 3563$

In relation to table 4.5 and 4.6 above, the researcher computed the mean score of the deviation of pre-test and post-test of both groups as follow:

$M x = \frac{\sum X}{N}$ $M x = \frac{\sum Y}{N}$

$M x = \frac{969.6}{30}$ $M x = \frac{300.1}{30}$

M x = 32.32 M x = 10.03

After calculating the mean deviation of both groups' pre-test and post-test, the mean deviation of experimental group was higher than the control group. The mean deviation of experimental group was 32.2 while the mean deviation of control group was 10.03.

Before analyzing the data by using the t-test formula, the researcher counted the sum-squared deviation of the mean deviation of the mean score for both experimental and control groups as stated in the following ways:

$\sum x\ 2 = \sum x \quad 2 - \frac{(\sum x)\ 2}{N}$ $\sum y\ 2 = \sum y \quad 2 - \frac{(\sum y)\ 2}{N}$

$= 34702 - \frac{(969.6)2}{30}$ $= 3563 - \frac{(300.1)\ 2}{30}$

$= 34702 - \frac{940124}{30}$ $= 3563 - \frac{90060}{30}$

= 34702 – 31337.5 = 3563 – 3002

= 3364.5 = 561

The result of the sum square deviation of experimental group is 3364.5 and the sum square deviation of control group was 561. Moreover, the researcher computed the t-counted to find out the significant difference between the experimental and control groups. The formula is as follow:

$$t = \frac{M\,x - M\,y}{\Sigma\left(\frac{\sum X2 + \sum Y2}{n\,x + n\,y - 2}\right)\left(\frac{1+1}{n\,x\,.\,n\,y}\right)}$$

$$= \frac{32.32 - 10.03}{\sqrt{\left(\frac{34702+3563}{30+30-2}\right)\left(\frac{1+1}{30\,.\,30}\right)}}$$

$$= \frac{22.29}{\sqrt{\left(\frac{38265}{58}\right)\left(\frac{2}{30}\right)}}$$

$$= \frac{22.29}{\sqrt{(659.74)\,(0.06)}}$$

$$= \frac{22.29}{\sqrt{39.58}}$$

$$= \frac{22.29}{6.3}$$

= 3.538

B. Testing Hypothesis

The testing hypothesis in this research, the researcher used 2 criteria proposed that the implementation of Accent Reduction Software can improve the ability of grade eight students of Tadris of English and Arabic at IAIN Palu to pronounce coronal sounds. Firstly, the hypothesis is accepted if the t-counted is higher than the t-table. Secondly, if the t-counted is lower than the t-table hypothesis is rejected.

The researcher found that the t-counted is 3.538. To know the significant difference of the test, the researcher compares the value of the t-counted with the value of the t-table. The degree of freedom (df) of the table is $n_x + n_y - 2$ = 30 + 30 – 2 = 58 with 0.05 level of significance cannot be found in the t-table, the researcher must calculate the t-table by using a formula as follows:

Degree of freedom = nx + ny -2

= 30 + 30 -2

= 58 (Between 40 – 60)

Level of significance = 0.05

40 = 1.684

60 = 1.671

Where:

a = 58 – 40 =18

b = 60 – 58 = 2

c = 1.684 – 1.671 = 0.013

the formula:

$\frac{a}{b}$ x c $= \frac{18}{2} x\ 0.013$

= 0.117

Df (58) = 1.684 – 0.117

= 1.567

To make the formula clear, there are some explanations provided by the researcher below:

a = The subtraction of the degree of freedom is obtained from the number of students in sample, and the degree of freedom whose figure precedes right before the degree of freedom is obtained on the table of critical values of the students' distribution.

b = The subtraction of two degree of freedom whose figure precedes and comes after the degree of freedom on the table of critical values of the students' distribution.

c = The values subtraction of the degree of freedom in b.

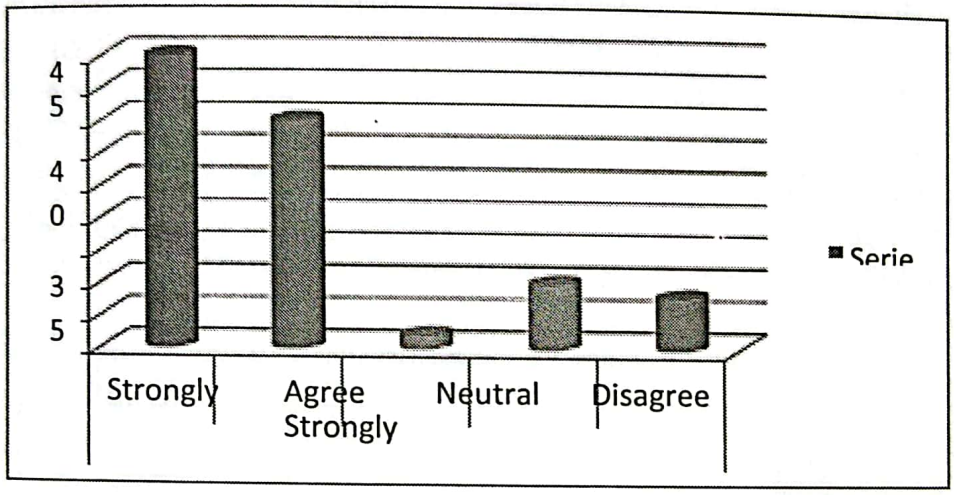
From the formula above, the researcher obtained that the value of t-counted was 3.538, and the value of t-table was 1.567. Thus, the result showed that the value of the t-counted is higher than the value of the t-table (3.538 > 1.567). It means that the hypothesis is accepted. Furthermore, there was a significant difference of achievement between the experimental and control groups. Altogether, the implementation of Accent Reduction Software can improve pronunciation students of

Tadris Arabic and English departments students at IAIN Palu.

C. The Result of Survei

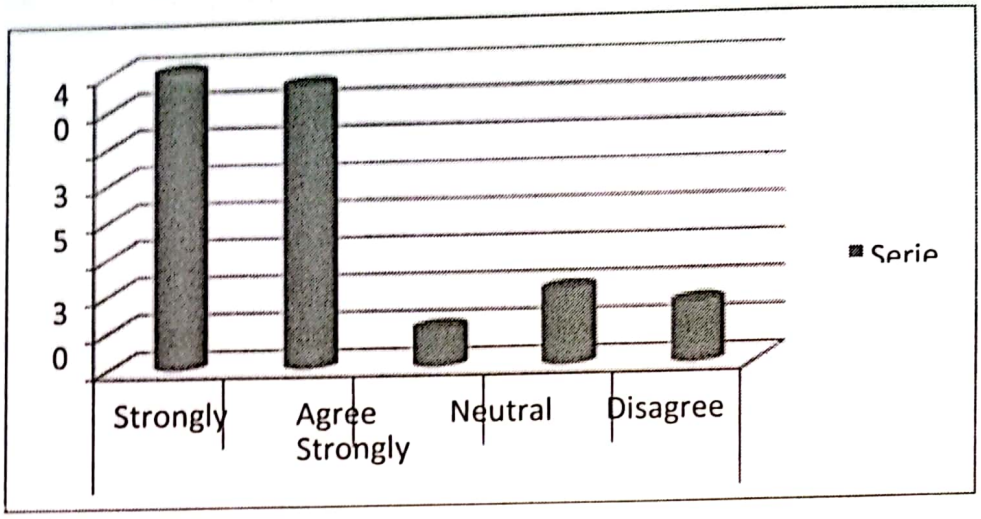
The result of the survey of all variables to understand students' perception on the use of the Accent Reduction Software are presented in the following figures. Figure one shows that eighty percent of students agree that the use of accent reduction software increased their pronunciations performance. While less than 20 percent said that the software did not affect their pronunciations improvement.

Figure 1. Performance Expectancy Test Results



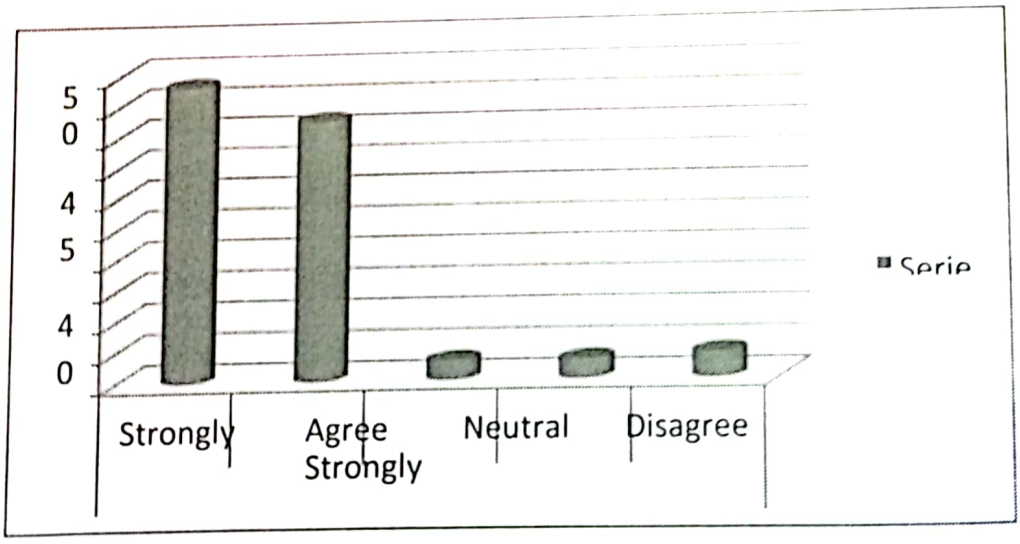
The figure two below shows that eighty three percent of the surveyed students said that the use of the accent reduction software can help their effort to increase their pronunciation learning. While less than twenty percent said the software did not help them in learning pronunciations.

Figure 2. Effort Expectancy Test Results



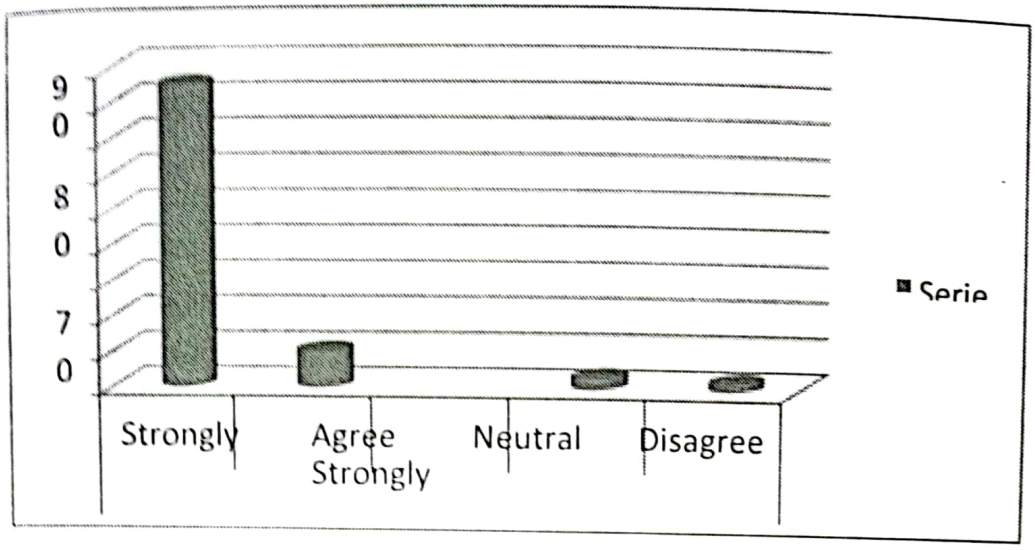
The figure three below shows that most of the students (85 %) agree that friends and other figures have influenced them to use the accent reduction software. This means that the teachers might have taken significant portion in the students' decision to use the software. While other less than ten percents of the students did agree that external actors have influenced them to use the software.

Figure 3. External Influence Test Results



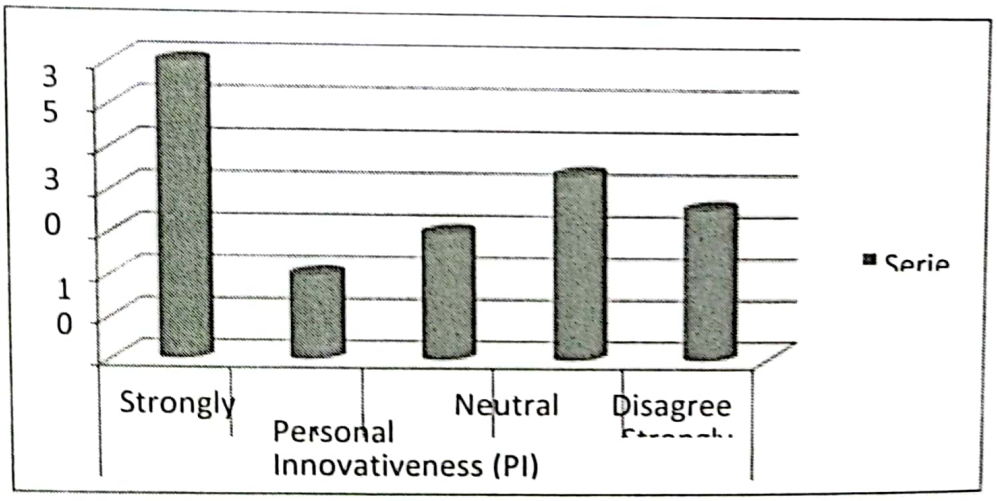
The figure four below shows that nearly hundred percent (95%) the students agree that the accent reduction software has very good quality for learning English pronunciations. This implies that the software is very helpful tool to be used in English pronunciations learning.

Figure 4. Quality of Services Test Results



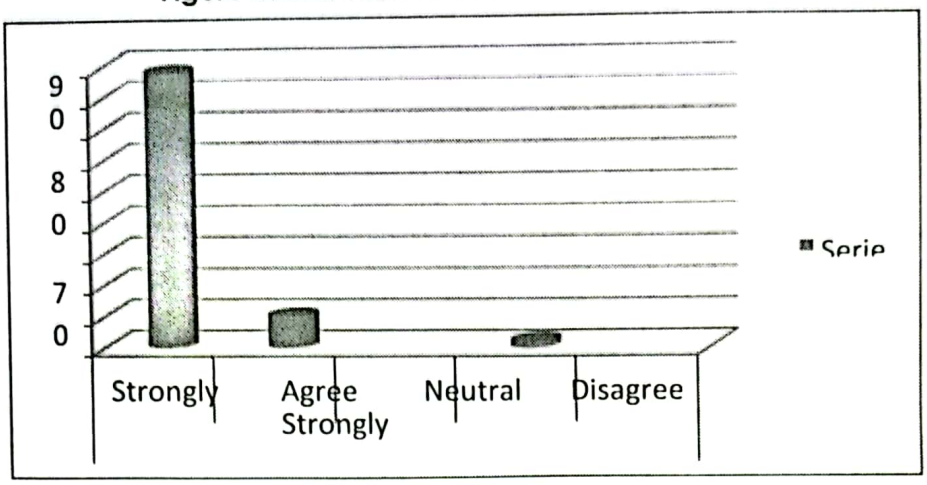
The figure five below shows that less than fifty percent of the students (45%) said that the software can increase their personal innovativeness, while most of the students said otherwise. The findings might be caused by the students lack understanding how the software contributed to their new innovativeness. It might also imply that the students lack knowledge relating to innovation in English learning.

Figure 5. Personal Innovativeness Test Results



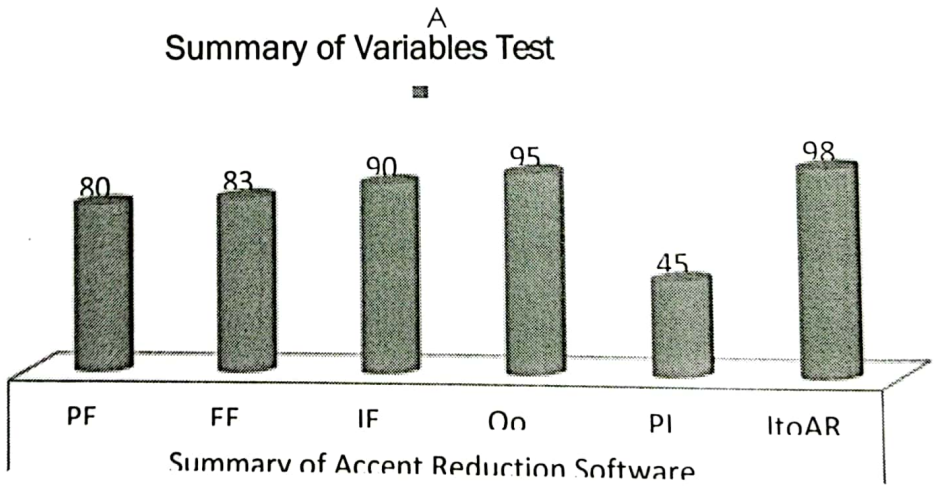
Meanwhile, the figure six below shows that almost a hundred percent of the students said that they will use the accent reduction software in the future of their English pronunciations learning. Only two students said otherwise. This proved that the software is an interesting tool for the students.

Figure 6. Intention to Use the Software



In the figure six, we presented the summary result of the variables test in this study. From all variables, only variable innovativeness did not have positive result, while another all variables have positive results. The results might prove that the use of accent reduction software has positive impact of the student's perception.

Figure 7. Summary of the Variables Test



The findings of our study have support previous studies. For example, Seferoglu (2005) argues that English as a Foreign Language (EFL) settings where natural target language input is scarce, technology has a lot to offer, and EFL learners may be provided with exposure and practice/interaction opportunities in the target language

through specifically designed software programs. Our study also proved that accent reduction techniques which are used to provide English learners with their own converted speech can be a reference for speaking skills training (Zhao, Koh, & Luke, 2012).

D. Discussion

In conducting this research, the researcher measured the students' ability in pronouncing coronal sound by giving a test on how to pronounce some single words. The purpose of this test is to see how the students pronounce the sounds in some words. In other words, the researcher wanted to know the students' ability in pronouncing some English sounds, specifically coronal sounds before treatment, during treatment, and after treatment. The finding of this research is related to the implementation of Accent Reduction Software as a medium in teaching pronunciation which focused on nine sounds (/θ/, /ð/, /t/, /z/, /ʃ/, /ʒ/, /tʃ/, /dʒ/, /r/).

Before the researcher conducted the treatment, there was a process that had been given by the researcher. Both experimental and control groups were given a pre- test to find out the students' prior knowledge about the sounds. The result of the pre-test showed that the students were having some problems in pronunciation. First, the students had some problems in pronouncing some English sounds such as /tʃ/ and /dʒ/ because it is an uncommon sound in Bahasa Indonesia. Second, it was difficult for the students to differentiate the sound [/θ/, /ð/] from [/t/, /d/] and sound [/ʃ/, /ʒ/] from sound [/s/, /z/].

The students made error when pronounced some words consisting of coronal sounds. Thus, after conducting the pre-test, the researcher found that the error in the experimental group was 90% or 27 students, while in control group was 93% or 28 students. Based on the result of the pre-test in the experimental group, the researcher found that there were 28 students (93%) who made error in pronouncing the sound /θ/ and /ð/. In pronouncing the

sound /t/ there were 15 students (50%) who made error. Moreover, no students (0%) made an error in pronouncing the sound /z/. Then, in pronouncing the sound /ʃ/, there were 10 students (33%), and in the sound /ʒ/, there were 20 students (67%) who made error. The percentage of the students' error in pronouncing the sound /tʃ/ was 16 students (53%), while the error percentage in pronouncing the sound /dʒ/ was 29 students (97%), and 18 students (60%) made error in pronouncing the

/r/ sound. Moreover, the result of the pre-test in the control group showed that there were 23 students (76%) who made error in pronouncing the sound /θ/, 25 students (83%) who made error in sound /ð/, and there were 10 students (33%) who made error in pronouncing the sound /t/. Then in pronouncing the sound /ʃ/, there were 22 students (73%), while in pronouncing the sound /ʒ/, the students who made error were 26 students (86%). The percentage of the students' error in pronouncing the sound /tʃ/ was 24 students (80%). Then, the students who made error in pronouncing the sound /dʒ/ were 23 students (76%), and 15 students (50%) made error in pronouncing the /r/ sound. Based on the error rate of pre-test, it can be concluded that the most difficult sound for experimental group is the sound /dʒ/, and sound /θ/, /ʒ/ for control group. After giving the pre-test, the researcher continued giving treatment to the students in the experimental group for 6 meetings. During treatment, the researcher founds that the students in the control group were difficult in identifying coronal sounds in the exercises that was given by the researcher and difficult in pronouncing the coronal sounds. Also, During the six meetings, there were some processes which had been done by the researcher. Firstly, the researcher introduces coronal sounds to the students. Then, she explained the sounds, and instantiate on how to pronounce each sound. Some students find it strange when they saw the IPA (International Phonetic Alphabet) which was written by the teacher on the whiteboard, and it was difficult for the students to understand the pronunciation because it was unfamiliar for them, but the researcher explained all the

sounds clearly to make the students understand on how to pronounce those sounds. Secondly, the researcher applied the medium whis is the Accent Reduction Software in teaching pronunciation for each meeting to the experimental group. Then the researcher asked the students to search some of the words which was provided by the teacher by using the software that contains audio that can be heard by the students and asked them to listen to the audio in the software. By practicing repeatedly and listening to the audio carefully, the students slowly can pronounce those sounds correctly.

After giving the treatment, the researcher gave the post-test to both experimental and control groups to know whether the implementation of the medium during the treatment which was given by the researcher can improve the students' ability in pronunciation. After conducting the post-test, the researcher found that all students in the experimental group passed the test. It means that no student failed the test.Based on the result of the post-test in the experimental group, there was 1 student (3%) who made an error in pronouncing the sound /θ/, /ð/ and /t/, and no students (0%) made error in pronouncing the sounds /z/, /ʃ/, /tʃ/, and /r/.In pronouncing the sound /ʒ/, the students who made error were 3 students (10%), while the percentage of students' error in pronouncing the sound /dʒ/ were 5 students (16%). Based on those error percentages, it can be said that the most difficult sound is /dʒ/ and the easiest sounds are /z/, /ʃ/, /tʃ/, and/r/. Moreover, the result of the students in control group that did not receive the treatment was lower than the experimental group. It can be proved by seeing the percentage of the students' error in pronouncing the sound /θ/ which was 18 students (60%), and 21 students (70%) in sound /ð/. In sound /t/ there were 4 students (13%) who made error. Then, there were no students (0%) who made error in pronouncing the /r/ sound. Next, the percentage of the students' error in pronouncing the sound /z/ was 3 students (10%), while the students who made error in pronouncing the sound /ʃ/ were 8 students (26%). In pronouncing the sound /ʒ/, there were

22 students (73%) who made error, and in pronouncing the sound /tʃ/ the error percentage was made by 15 students (50%). Then, there were 24 students (80%) making error in pronouncing the sound /dʒ/. To know the treatment was acceptable or not, the researcher calculated the general percentage of both groups post-test. The result of the post-test in the experimental group showed that 30 students (100%) could pass the test while the result of the post-test in the control group showed that only 2 students (7%) could pass the test.

By comparing the error rate percentage in pre-test and post-test of both groups, the researcher calculated the reduction percentage of error rate in sounds [θ, ð, t, z, ʃ, ʒ tʃ, dʒ, /r/]. In experimental group the reduction of error rate in pronouncing sound /θ/ and /ð/ is 90%. In sound /t/ the reduction of the error rate is 47%, in sound /ʃ/ and /tʃ/ the reduction is 100%, while in sound /ʒ/ is 57%, and in sound /dʒ/ is 81%. Moreover, in control group, the reduction of error rate in pronouncing sound /θ/ is 16%, 13% in sound /ð/, 20% in sound /t/, 29% in sound /z/. Then, the reduction of error rate in pronouncing sound /ʃ/ is 47%, 13% in sound /ʒ/, 30% in sound /tʃ/, and 4% in sound /dʒ/. By seeing the result of both groups, the use of Accent Reduction Software as a medium in teaching English pronunciation can improve the students' pronunciation ability especially in coronal sounds.

In brief, by implementing a medium that is Accent Reduction Software during the treatment, the researcher found that there was a significant improvement on the students' pronunciation of the eighth-grade students of English and Arabic tadris at IAIN Palu. The result of students' post-test in experimental group and control group was increased.

According to the findings, the researcher relates it to the previous study. It is research that was conducted by Gorjian, Hayati, and Pourkhoni (2013) that has the same way to improve the students' ability in pronunciation by using Accent Reduction Software. Moreover, the result of her research indicated that the use of audio Accent

Reduction Software brought significant improvement in terms of students' ability in English pronunciation particularly on the English consonant sounds. Based on that research, it can be said that implementing Accent Reduction Software as a teaching medium can improve the students' pronunciation.

CHAPTER V
CONCLUSION AND SUGGESTION

A. Conclusion

In conclusion, implementing Accent Reduction Software as a medium can improve pronunciation of grade eight students of English and Arabic tadris at IAIN Palu. The reasons are first, implementing Accent Reduction Software is an appropriate medium to improve students' ability in pronunciation. The result of the data analysis indicates that the research hypothesis is accepted. It is proved by the result of the t-counted and t-table where the result of the t-counted (3.538) is higher than t-table (1.567). Thus, implementing Accent Reduction Software can improve the pronunciation of the eighth-grade students at Tadris of English and Arabic Department at IAIN Palu. Second, during the teaching and learning process, the students show their excitement toward the application of Accent Reduction Software.

The survey to find out students' perception on the use of accent reduction software also that five variables of the

survey show that most of the students agree that the software has positive influence on their intention to use the software. The students agree that the software can help them to improve their English pronunciations and they will use it in the future.

B. Suggestion

After conducting the research, the researcher would like to provide some suggestions that might be beneficial for the improvement in the teaching and learning process. First, seeing the effectiveness of Accent Reduction Software medium application in teaching and correcting students' pronunciation, especially in pronouncing coronal sounds, it is obviously important for the teacher to consider the implementation of Accent Reduction Software as one of alternative ways to apply in the classroom. Students can use this software that consists of sound to train them to learn to pronounce a word correctly because this software, which consists of sound and transcription, can help the students when they are learning English, especially pronunciation. By looking at the condition of the students, some of them have rich vocabulary but they sometimes mispronounced the word. That is why it is important for the students to install this kind of software on their laptop or smart-phone. Additionally, the school also can provide the software on the computer which is provided in the library to help the students learn English especially pronunciation. Second, the researcher suggests the students to keep practicing the correct pronunciation of English, especially in pronouncing coronal sounds since the lack of pronunciation practice in spoken English may well lead to mispronunciation. Further, the last thing for the next researchers who are interested in conducting the similar research, the researcher expects that there are more attractive explanations about the medium to get the students' interest in using the medium to improve their pronunciation.

REFERENCES

Arikunto, S. (2006). *Prosedur Penelitian: Suatu Pendekatan Praktis. Jakarta: Binarupa Aksara.*

Basri, H. (2013). *English Phonology.*

Breitkreutz Judith A. Derwing Tracey M., & J., R. M. (2001). *Pronunciation Teaching Practices in Canada. TESL CANADA JOURNAL, 19*(1).

Burns, A., & Claire, S. (2003). *Clearly Speaking Pronunciation in Action for Teachers. Sydney: The National Centre for English Language Teaching and Research Macquire University.*

Burns, A., & Claire, S. (2003). *Clearly Speaking Pronunciation in Action for Teachers. Sydney: National Centre for English Language Teaching and Research Macquarie University.*

Cakir, I. (2011). Promoting Correct Pronunciation Through Supported Audio Materials for EFL Learners. *Energy Education Science and Technology Part B: Social and Educational Studies, 4*(3), 1801-1812.

Cohen, L., Manion, L., Morrison, K. (2005). Research Methods in Education. 5th. Ed. *London: Routledge Falmer.*

Cresswell, J. W. (2005). *Research Design Qualitative, Quantitative. And Mixed Methods Approaches* second edition. *London: Sage Publications, Inc.*

Dardjowidjojo, S. (2009). *EnglishPhonetic & Phonology: for Indonesian. Jakarta: Yayasan Obor Indonesia.*

Francis Katamba, Michael Dobrovolsky. (1997). *Phonetics: The Sounds of Language*. Fraser, H. (2000). Literacy versus oral communication skills for ESL learners. *Literacy Link: Newsletter of the Australian Council for Adult Literacy, 19* (3), 4-6.

Fraser, H. (2001). *Teaching Pronunciation: A handbook for teachers and trainers*: Department of Education Training and Youth Affairs (DETYA).

Gilakjani, A. P. (2012). *A Study of Factors Affecting EFL Learner's English Pronunciation Learning and the Startegies for Instruction. International Journal of Humanities and Social Science, 2:3.*

Gilakjani, A. P. (2016). *English Pronunciation Instruction: A Literature Review. International Journal of Research in English Education, 1.*

Gorjian, B., Hayati, A., & Pourkhoni, P. (2013). Using Praat Software in Teaching Prosodic Features to EFL Learners. *Procedia - Social and Behavioral Sciences, 84,* 34-40. doi: http://dx.doi.org/10.1016/j.sbspro.2013.06.505

Hager, A. (2001). *Focus on Basics, Connecting Reserach & Practice. National Centre for the Study of Adult Learning and Literacy, 5*(A)

Harmer, J. (2007). *How to Teach English. London. Pearson Longman.*

Jenkins, J. (2002). *A Sociolinguistically Based, Empirically Researched Pronunciation Syllabus for English as an*

International Language. Oxford University Press, 23(1), 83-103.

Karakas A., Sönmez E. (2011). *The Teaching of [θ] and [ð] Sounds in English. 1st International Conference on Foreign Language Teaching and Applied Linguistics May 5-7, 2011, Sarajevo*.

Katamba F. , Dobrovolsky M. (1997). Phonetics: The Sounds of Language.

Kawai, G., & Hirose, K. (2000). Teaching the pronunciation of Japanese double-mora phonemes using speech recognition technology. *Speech Communication, 30*(2), 131-143. doi: http://dx.doi.org/10.1016/S0167-6393(99)00041-2

Kayaoğlu M. N., Çaylak N. (2013). *What is Needed for Correct Pronunciation: A Model or a Concern? Eurasian Journal of Educational Research* (53).

Kreidler, C. W. (2004). *The Pronunciation of English*: Blackwell Publishing. Ladefoged, P. (2011). *A Course in Phonetics*: Wadsworth Cengage Learning.

Marifatika, E. (2015). Alphabet, Vowel and Consonant. Retrieved 12 August 2019, from Kelas bahasa Inggris

McMahon, A. (2002). *An Introduction to English Phonology*: Edinburgh University Press Ltd.

Nurgiantoro, B. (1995). *Teori Pengkajian Fiksi. Yogyakarta: Gadjah Mada.*

O'Connor, J. D. (1980). *Better English Pronunciation*: Cambridge University Press. Osowski, L. (2012). *Pronunciation Practice Games, activities, curriculum suggestions, and word lists to improve pronunciation. Adult Learning Center Nashua, New Hampshire*.

Pi-hua, T. (2015). Computer-Assisted Pronunciation Learning in a Collaborative Context: A Case Study in

Taiwan. *TOJET: The Turkish Online Journal of Educational Technology, 14*(4), 1-13. Richards Jack C., & Schmidt,

R. (2010). *LANGUAGE TEACHING AND APPLIED LINGUISTICS*: PEARSON EDUCATION LIMITED.

Roach, P. (2009). *English Phonetics and Phonology, A practical course, Fourth edition. Cambridge University Press.*

Rogers, H. (2000). *The Sounds of Language: An Introduction to Phonetics. Harlow, Essex: Pearson/Longman.*

Seferoglu, G. (2005). Improving Students' Pronunciation Through Accent Reduction Software. *British Journal of Educational Technology, 36:2, 303-316.*

Seferoğlu, G. (2005). Improving students' pronunciation through accent reduction software. *British Journal of Educational Technology, 36(2), 303-316.* doi: https://doi.org/10.1111/j.1467-8535.2005.00459.x

Vizental, A. (2008). *Phonetics and Phonology, An Introduction. Arad: Editura Universitatii "Aurel Vlaicu".*

Wang, X., & Munro, M. J. (2004). Computer-based training for learning English vowel contrasts. *System, 32(4), 539-552.* doi: http://dx.doi.org/10.1016/j.system.2004.09.011

Warschauer M. , Healey D. (1998). Computers and Language Learning: an overview.

Lang. Teach., 57-71.

Yates, L. (2002). *Fact Sheet - What is pronunciation? Adult Migrant English Program Research Centre.*

Zhang, F. (1998). *Exploring computer-based browsing systems in the teaching of Chinese pronunciation. Language, Society and Culture 3.*

Zhao, S., Koh, S. N., & Luke, K. K. (2012, 27-31 Aug. 2012). *Accent reduction for computer-aided language learning.* Paper presented at the 2012 Proceedings of the 20th European Signal Processing Conference (EUSIPCO).

BIOGRAFI PENULIS

Nurasmawati, lahir di palu tanggal 26 Juli 1974, merupakan salah satu dosen bahasa Inggris pada Universitas Islam Negeri Datokarama Palu (1997- saat ini), menjadi Ketua Program Studi Tadris Bahasa Inggris (2018-2021). Menyelesaikan pendidikan s3 pada bidang Pendidikan Bahasa Inggris di tahun 2017 di Universitas Negeri Makassar, pernah mengikuti program *visiting scollar sandwich* (english literature) di Universitas Sidney pada tahun 2011. Penulis telah menerbitkan beberapa buku diantara-Nya ***metode fuzzy delphi untuk penelitian sosial.***

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This research aims to prove that Accent Reduction Software can improve pronunciation of Tadris of English and Arabic at UIN Datokarama Palu. This research applied a quasi-experimental research design with 40 students as sample. The sample of this research was selected by using a cluster random sampling technique. The instrument of data collection was pre-test and post-test. The data gathered were analyzed statistically. We also distributed questionnaires to the students to understand their perception on the accent reduction software. The result of the data analysis shows that there was a significant difference between the result of the pre-test and post-test. It was proved by seeing the mean score for both tests' results where the mean score of the experimental group was significantly improved from 53.12 to 85.44. Meanwhile, the control group's mean score was improved from 49.33 to 59.11. [illegible] the researcher computed the t- counted in order to found [illegible] significant difference in the students' ability. It could be concluded that the research hypothesis is accepted. The result of the survey also shows that most of the students have positive perception on the use of accent reduction software English pronunciations learning. The results of survey also show that most students hav positive attitude towards the accent reduction software used during teaching English pronounciation.

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