

Promoting Students' Accuracy in Pronouncing Consonant Sounds by Using English Pronunciation Software

Muhammad Sifaul Ulum Harlika¹
MTs YPI Al-Hidayah Sumobito Jombang
ulambarlika@gmail.com

Muhammad Saifuddin²
Universitas Pesantren Tinggi Darul Ulum Jombang
Mubammadsaifuddin@fbs.unipdu.ac.id

Nailul Fauziyah³
Universitas Pesantren Tinggi Darul Ulum Jombang
nailulfauziyah@fbs.unipdu.ac.id

Abstract: Good pronunciation accuracy is an essential aspect to be able to speak English well. This research aimed to improve the students' accuracy in pronouncing consonant sounds at Class XI Ak-1 of SMKN Mojoagung. This research used Classroom Action Research as the research design. The result showed that there were 74% of 35 students passed the passing grade, while the criteria of success in this research was 70%. It meant that the cycle stopped, and the action was successfully done. It could be concluded that the use of the software could improve students pronunciation accuracy especially in pronouncing consonant sounds by utilizing more the features in the software that showed manner of articulation and voicing before explaining the theory specifically, and giving more practices during the teaching and learning process.

Keywords: *Pronunciation, Accuracy, English Pronunciation Software.*

A. INTRODUCTION

Learners need to master the English sounds in learning pronunciation. It is due to the fact that the phoneme rules of Indonesian language is different from English. Skandera and Burleigh (2005, p.20) explains that every language has its own phoneme rules because the phonemes sometimes also vary from dialect to dialect or from accent

to accent. Furthermore learners should pay attention to accuracy in order to achieve their good pronunciation.

To gain accuracy in pronunciation, learners should understand the aspects of speech sound production. Ogden (2009: 18) explains that there are three main aspects of speech sounds production in English: voicing, place of articulation and manner of articulation. Those aspects will determine whether a sound is pronounced accurately or not. For instance, the sound /ʃ/ in the word “ship /ʃɪp/” and /s/ in the word “sip /sɪp/”, those sounds have the same voicing (voiceless) and manner of articulation (fricative articulation), while the place of articulation is different. The sound /ʃ/ is an alveolar consonant, while /s/ is post-alveolar consonant. If the sounds are not pronounced accurately, misleading will happen. However, learners do not know what is voicing, place of articulation, or manner of articulation. Thus, the accuracy cannot be achieved. Therefore it is impossible to gain accuracy in pronunciation without mastering aspects of sound production.

A preliminary study was conducted to students of Class XI AK-1 and XI AK-2 SMKN Mojoagung. It showed that most of the students easily pronounced words consisting of vowel sounds, but they still got difficulties in pronouncing consonants sounds. For instance, to pronounce the sound /g/ in word ‘thing’ and the sound /k/ in the word ‘think’. The students couldn’t pronounce them correctly. They couldn’t differ the sound /g/ and /k/ even they couldn’t pronounce the sound /θ/ in those words. That means they also couldn’t differ between the sound /t/ and /θ/. The students were difficult to pronounce those sounds because they don’t understand how to pronounce its with the correct voicing, place of articulation, and manner of articulation. One of the solution to solve the problem is using English Pronunciation software. It is based on the purpose of this software that is to improve and train the English Pronunciation. Furthermore, it has some features supporting users to improve their pronunciation, especially accuracy. The picture of vocal tract and the video section provided in this software can help students to Identify voicing, place of articulation, and manner of articulation. Then there is phonetic transcription to help students in pronouncing words, phrases, and sentences. In accordance to the features provided in this software, the benefits of using this software is not only to understand voicing, place of articulation, and manner of articulation in every sound but also to practice the phonetic symbol that helps learners to achieve pronunciation accuracy.

In this case, a current study conducted by Muna (2012) showed that digital learning was one of the ways to improve the students’ pronunciation. She used “Tell Me More” software to improve the students’ ability to pronounce words and sentences consisting of vowel and consonant sounds. The media can help students’ pronunciation because it provides some features such as the accuracy, intonation, and stressing. The result was teaching pronunciation by using pronunciation software is helpful in improving students’ ability in pronouncing words and sentences in English.

B. REVIEW OF RELATED THEORY

1. Pronunciation

Pronunciation refers to the ways to speak appropriately. The appropriateness leads the rules of pronunciation when speaking. To be able to speak appropriately, there are several aspects of pronunciation that must be considered. Kenworthy (2002, p.9-11)

explains that there are several aspects of pronunciation in English such as combinations of sounds, linkage sounds, word stress, rythm, weak forms, sentence stress, and intonation. In pronunciation, it needs to combine vowels and consonants to form words or sentences. When pronouncing words or sentences, there are some parts of the syllable that must be stressed. Furthermore, it needs to link last sound of the first word to the first sound of the next word when speaking. The rythm, weak forms, and intonation also must be considered to achieve good pronunciation.

2. **Pronunciation Accuracy**

According to Cruttendan (2002: p.27-30) explains that accuracy in pronouncing consonant sounds is affected by the aspects of sound production such as voicing, place of articulation, and manner of articulation. To get accuracy a consonant sound must be pronounced in correct ways. For instance, in pronouncing sound /ʃ/ in word “ship /ʃɪp/”, the airstream is pushed through narrow opening between the articulators, in this case between the tongue and palate. When pronouncing that sounds, the vocal folds are not vibrated. However, learners often pronounce the similar sound /s/, so it sounds like “sip /sɪp/”. Although /s/ and /ʃ/ has same manner of articulation and voicing, they are different from the place of articulation. /s/ is an alveolar sound, while /ʃ/ is a palatal sound. Simply, the accuracy is gained by correctly combining the movement of articulators, airstream mechanism, and voicing of vocal folds.

3. **Voicing**

Voicing is known as the vibration of vocal folds. In English, there are two voicings that exist such as voiced and voiceless. Skandera and Burleigh (2005: 12) state that voiced is when the glottis is narrow and the vocal folds are together, the air-stream forces its way through and causes the vocal folds to vibrate, while voiceless is when the glottis is open and the vocal folds are apart, the air passes through without causing the vocal folds to vibrate. All vowels in English are voiced, but consonants can be both voiced and voiceless. For instance the sound /p/ in word “pack /pæk/” is a voiceless consonant, while the sound /b/ in word “back /bæk/” is a voiced consonant. The simple experiment to know whether a consonant voiced or voiceless is by putting a finger over the ear. If there is vibration, it’s voiced, but if there is no, it’s voiceless.

Table 2.1 The Examples of Voicing in Words

VOICED	VOICELESS
Town /taʊn/	Down /daʊn/
Cab /kæb/	Cap /kæp/
Believe /bi'li:v/	Belief /bi'li:f/
Glue /glu:/	Clue /klu:/

Joke /dʒoʊk/	Choke /tʃoʊk/
--------------	---------------

Table 1 shows words which have similar phonetic transcription, but there is a sound that makes them different. The voiced consonants above are /t/, /b/, /v/, /g/, and /dʒ/, and the voiceless partners are /d/, /p/, /f/, /k/, and /tʃ/. Actually, those words have the same place and manner of articulation, but the difference is only in their voicing. Thus, if learners do not give the voicing accurately, the meaning can be exchanged.

4. Manner of Articulation

The another aspect of sound production that has to be mastered is manner of articulation. Yule (1993, p.39-40) explains that there are six manners of articulation in English. They are:

a. Stops

Stops are produced by some form of complete ‘stopping’ of the airstream and than letting it go abruptly. In English, they are /p/, /b/, /t/, /d/, /k/, /g/. For instance, /b/ in word “big /bɪg/” and /g/ in word “pig /pɪg/”.

b. Fricatives

In the production of a fricative, it involves almost blocking the airstream, and having the air push through the narrow opening. In English those are /f/, /v/, /θ/, /ð/, /s/, /z/, /ʃ/, /ʒ/, /h/. For instance, /ʃ/ in word “fish /fɪʃ/”.

c. Affricates

Affricates combine a brief stopping of the airstream with an obstructed release which causes some friction. In English, affricates are combinations of post alveolar plosives and post alveolar fricatives such as /dʒ/ and /tʃ/. For instance, /dʒ/ “age /eɪdʒ/” and /tʃ/ “watch /wɑ:tʃ/”

d. Nasals

Nasals occur when the velum is lowered and the airflow is allowed to flow out through the nose to produce. The consonants /m/, /n/, /ŋ/ are nasal sounds. For instance, /ŋ/ in word “sing /sɪŋ/”.

e. Liquids

Liquids let the airstream flow around the side tongue and make contact with alveolar ridge. For instance the sound /l/ “fill /fɪl/” and /r/ “care /kɛr/”.

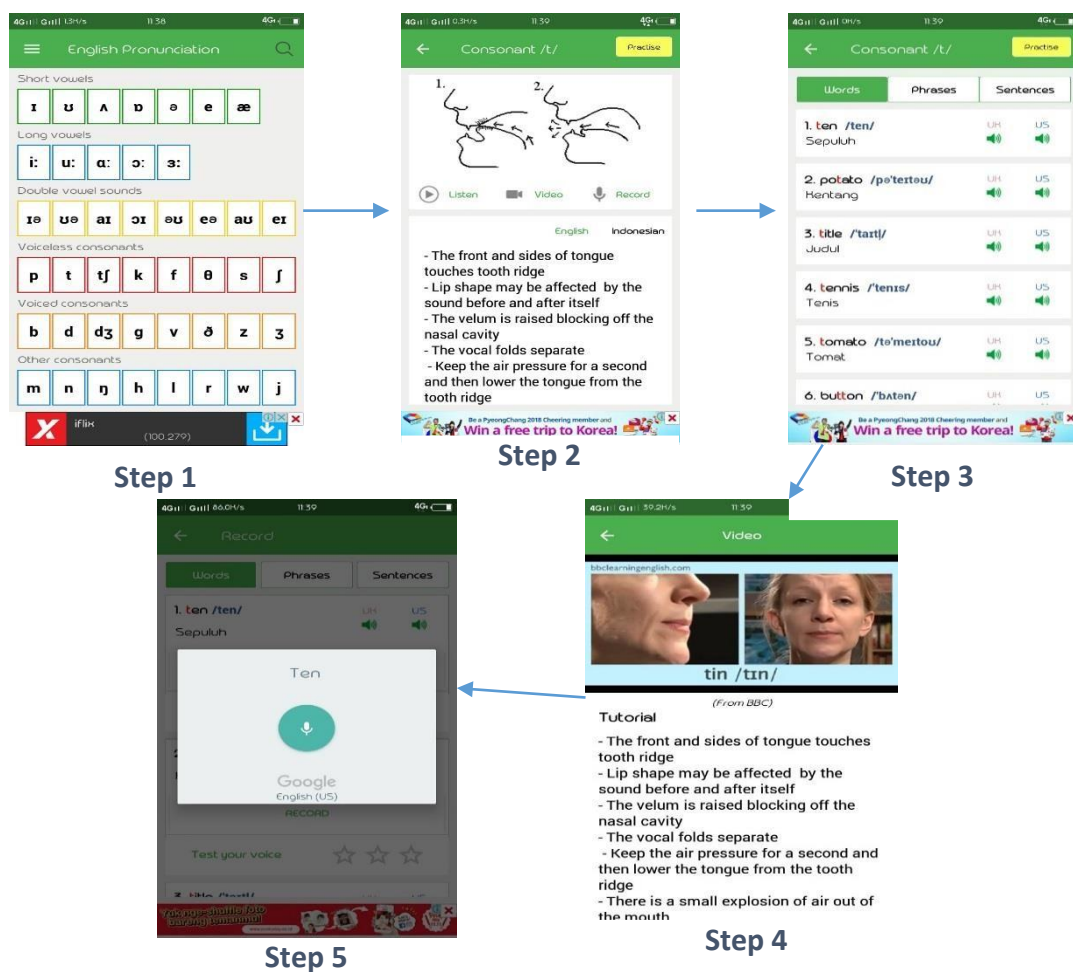
f. Glides

Glides are produced with tongue moving or gliding to a position contacted with a near vowel sound. Hence, glides called ‘semi-vowels’. There are two glides in English such /w/ and /j/. For instance, /w/ “wet /wet/” and /j/ “you /ju/”.

5. English Pronunciation Software

Pronunciation software is a type of software used to learn pronunciation (Muna, 2012, p.91). There are several operational advantages of the software. It provides the phonetic transcription that help learners to pronounce the words well and to know whether a sound is voiced or voiceless. Furthermore, the picture of oral tract and the description in each sounds in this software are useful to understand manner of articulation and place of articulation.

Figure 1 The procedure of English Pronunciation software



To begin this software, tap the menu of sounds as it is showed in step 1. For instance sound /t/. After tapping /t/, the screen wil show the users to description of place and manner of articulation. In step 3, it shows the examples of /t/ sounds in the form of word. Then, check the detail of /t/ sound and the similar sound /d/ from the video like in step 4. The last step, record and practice the pronunciation of /t/ sound.

C. METHOD

This research used Classroom Action Research as research design. Singh (2006, p.261) defines that action research is a method for improving and modifying the working system of a classroom in school. This research aimed at improving students' accuracy in pronouncing consonant sounds. Furthermore, this research was conducted into four phases such as planning, action, observation, and reflection in a cycle. The improvement was known from reflection phase through analysing the result of students' test and observation. If the percentage of the students who could achieve or pass over the criteria of success, the cycle was stopped. However, if it was under the criteria of success, this research was continued to next cycle.

This research was collaborative action research. The researcher collaborated with the English teacher. The researcher was a teacher during the implementation of English Pronunciation software. Then, the English teacher was an observer.

1. Participants

This research conducted at SMKN Mojoagung. There were thirteen classes in the eleventh grade. Accounting program consisted of four classes, Marketing program consisted of four classes, and Administration program consisted of five classes. The researcher chose class XI Ak-1, it was based on the preliminary study on January 5th 2018. When the researcher asked students to pronounce some words in English, most of them could not pronounce the words accurately, and there were only two up to three that could pronounce the words accurately. Furthermore, in another class that the researcher observed (Class XI Ak-2), almost all students could pronounce the words accurately, and there were about five up to seven who could not pronounce the words accurately

2. Instruments

1. Test

The test was conducted in the last meeting. The test was oral test. Students' pronounced 10 words, 5 phrases, and 5 sentences consisting of all consonant sounds in English based on manner of articulation. For the test, the researcher called students one by one to come in class then doing oral test.

2. Observation

The observation checklist was used to know student's responses in operating the software and pronouncing words, phrases, and sentences given by the teacher (see appendix 1 and 2). The collaborator used observation checklist to observe students' responses during the implementation of English Pronunciation software.

3. Data Analysis

To analyse the data, students' scores, the following formula was used:

$$P = \frac{X}{N} \times 100 \%$$

Note :

P : The percentage of students who achieved minimum passing grades (KKM).

F : The number of students who achieved minimum passing grades (KKM).

N : The number of all students. (adapted from Sudijono, 2008: 38)

To analyse the result of observation checklist, this research used the three processes:

1. **Data reduction**
the data was simplified the important data.
2. **Data Display**
The data was tranformed into the table.
3. **Making Conclusion**
From the table, the data concluded based on the strenght and weakness during the implementation of this research.
(adapted from Koshy, 2005: 113)

D. FINDINGS

a. Students' Responses

Finding in students' responses were based on the observation checklist in meeting 1 and meeting 2. The data observation were students' responses during the implementation of English Pronunciation Software. Students' responses were reflected in the indicators of observation checklists. The indicators could be fulfilled or unfulfilled. The indicator was categorized as fullfilled if 25 of 35 students or more could follow the activity well, but the indicator was categorized as unfulfilled if less than 25 students could follow the activity well. From the observation checklist of meeting 1 and meeting 2, the data were transformed in table.

Based on the students ability to use English Pronunciation Software in both meeting 1 and meeting 2 , all indicators were categorized as fulfilled. Almost all students could utilize the software properly such as selecting the sounds and identifying the sounds of words.

The next indicators were fulfilled, but students who followed the activities were different both in meeting 1 and meeting 2. In indicator 1b "Students can use the phonetic symbols provided in the software to figure out the sound of words". In meeting 1 there were 26 students who could follow the indicator, and in meeting 2 there were 29 students. In meeting 1, after introducing students about language sounds in English, in this case plosive and fricative sounds , researcher divided students into seven groups, each group consisted of four until five students and there were three until four software in each group. Researcher chose five sounds for each group that consisted of three plosive sounds and two fricative sounds. Then, researcher asked students to select those sounds one by one and look for the examples of each sounds and the phonetic symbols. Students had to pronounce the phonetic symbols individually, while the researcher and collaborator was checking students ' pronunciation. In meeting 2, it was still in the same activity. However, before asking students to pronounce the phonetic symbols, researcher gave more exmples how to pronounce phonetic symbols accurately. It was done to give more understanding to students before practicing their pronunciation.

The next activities was based on indicator 1c "students can determine the manner of articulation of some sounds from the picture provided in the software" and 1d "students can determine the voicing of some sounds from the description provided in the software". The activities were determining the manner of articulation and voicing through the software. In meeting 1 there were 25 students who could follow the indicator 1c, and 26 students for indicator 1d, while in meeting 2 there were 28 students

who could follow the indicator 1c, and 29 students for indicator 1d. In meeting 1, researcher explained students theories about manner of articulation and voicing then taught students how to determine the sounds accuracy by using the software. In this case, students still worked in group. Students were assigned to identify manner of articulation and voicing of sounds given by researcher, while the collaborator was observing students. Most students were expert , but some of them were still confused in determining the manner of articulation and voicing. There were features that they didn't understand such as the picture of vocal tract and the general description of each sound. In meeting 2, researcher emphasized more about the features provided to determine manner of articulation and voicing to be able to make students know how to use the software properly.

Indicator 2 was “students can accurately pronounce the similar words consisting of sounds based on manner of articulation that are given by the teacher”. It was about students’ pronunciation practice of similar words. In meeting 1 there were 25 students who could follow the indicator 2, while in meeting 2 there were 29 students. In this activity, researcher early showed students the video about similar sounds provided in the software. The video contained the explanation about how to differentiate the similar sounds such as the movement of airstream, voicing, lips shape, and the words examples. After showing the video, researcher gave students four similar words for each students to be pronounced. It need long time to check students’ pronunciation one by one. Therefore, in meeting two researcher explored the activity . Students were only given two similar words to be pronounced. It aimed to maximize students’ practice.

Indicator 3 was “students can pronounce accurately some words, phrases, sentences consisting of sounds based on manner of articulation that are given by the teacher”. It was still about students’ practice. In meeting 1, the indicator 3 was followed by 25 students, while meeting 2 was followed by 29 students. The activity in this indicator was pronouncing the examples of the sounds in the form of words, phrases, and sentences. In meeting 1, researcher gave two words, two phrases, and two sentences to be pronounced. like the previous activities, it need too long time to check students’ pronunciation one by one. Because in meeting 2 there were still many sounds that should be taught, researcher added the time in this indicator by giving only one word, one phrase, and one sentence to be pronounced by students.

a. Students’ Achievement

The achievement test was conducted to get students’ scores. Achievement test was done in the last meeting of action phase. This was the classification of the achievement test:

Table 2 The Classification of Students’ Score

Sum of Students	Score
2	60
1	70
16	85
2	90
8	100

There were 35 students in XI AK-1 Class. However, only 29 students followed the achievement test. The result showed that there were 3 students got score under minimum passing grade. Their scores were 60 and 70, while minimum passing grade was 75. Furthermore, 26 students got score above minimum passing grade. Their score were, 85, 90, and 100.

The researcher had analyzed the students' difficulties in the achievement test. 3 students who got scores under minimum passing grade were good when they pronounced words. However, when they pronounced phrases and sentences they still had difficulty especially to pronounce sounds /dʒ/, /tʃ/, and /ð/. The sound /dʒ/ in the last sound such as word "fridge" was not pronounced accurately. The sound /tʃ/ was replaced by sound /t/, and sound /ð/ was replaced by sound /θ/. Some of 26 students who passed minimum passing grades also had difficulty in pronouncing these sounds when pronouncing sentences, but they could pronounce these sounds well in the form of words, and sentences.

After getting the students' scores, the scores were analyzed into the percentage to know students' percentage who achieved minimum passing grades (KKM), this was the result of analysis as follows :

$$\frac{26}{35} \times 100 \% = 74\%$$

26 is the students who achieved minimum passing grades. 35 is the numbers of students. from the analysis, it showed that 74% of students achieved minimum passing grades, while the criteria of succes of this research is 70%. Because the result of students' scores (74%) was above the criteria of success (70%), this research was stopped, and the cycle would not be continued to next cycle. From the students' scores, it could be concluded that English Pronunciation Software improved the students accuracy in pronouncing consonant sounds at XI AK-1 class.

E. Discussion

The result of observation checklists showed that all indicators were fulfilled. However, there were still some notes from the collaborator especially in meeting 1. For instance, in case of using the phonetic symbols and practicing their pronunciation in words, phrases, and sentences, students were still confused. There were still some sounds that students couldn't pronounce accurately such as /ð/, /tʃ/, /θ/, /v/ and /k/. Those sounds were frequently replaced by the others sounds. for instance:

- With /wɪð/ → / wɪt/
- Think /θɪŋk/ → /θɪŋ/, /tɪŋ/
- Move /mu:v/ → /mu:f/

When students pronounce the word "with" /wɪð/, they often pronounced the sound /ð/ like /t/ sound. It happened because they didn't know the difference between those sounds both the manner of articulation and voicing. Sound /k/ in the last sound sometime didn't pronounced accurately such as word "think" /θɪŋk/. Students pronounced the word like /θɪŋ/ and /tɪŋ/. However, if /k/ sound located in the first sound such as cause /kəʊz/, students could pronounce it accurately. When students pronounced the word "Move" /mu:v/, they pronounced it like /mu:f/. It happened because they couldn't differentiate the voicing of those sounds.

The activities of meeting 1 and meeting 2 made change of students' pronunciation especially in pronouncing consonant sounds. It also depended on the use

of English Pronunciation Software as the teaching media. The students were very interested during the teaching learning process through the software. The features of the software really helped students to learn pronunciation accuracy in meeting 1 and meeting 2. Hence, all indicators of both meeting 1 and meeting 2 were categorized as fulfilled. However, there were some notes from the collaborator especially in meeting 1. In meeting 1, researcher needed to emphasize the use of the software such as how to pronounce the phonetic symbols and the features provided to determine manner of articulation and voicing of a sound.

The treatments using the software ran fluently. It could be seen from the result of observation checklist in meeting 1 and meeting 2. In both meeting, the indicators were categorized as fulfilled. It meant students could follow the activities well, and understood the learning materials. Because students understood more about manner of articulation and voicing, It helped them to pronounce words, phrases, and sentences accurately. Therefore, when students followed the achievement test, the result showed that most students passed the minimum passing grades. There were 74% of 35 students passed the passing grade, while the criteria of success in this research was 70%. It meant the cycle was successful.

F. Conclusion

a. Conclusion

The result of this research showed that all indicators of the observation checklists were fulfilled. It meant that students' responses during the teaching and learning process achieved the criteria of success that there are 25 of 35 students or more followed each indicators of observation checklist. Besides, the students achieved the criteria of success in students' achievement, that is 74% or 26 students. It can be concluded that the use of English Pronunciation Software can improve students' pronunciation accuracy especially in pronouncing consonant sounds by some ways, words, phrases, and sentences.

b. Suggestions

It is suggested for the teacher to use English Pronunciation Software as her teaching media especially in teaching pronunciation. The teacher could use the software to improve students' pronunciation accuracy by utilizing more about the features in the software that showed manner of articulation and voicing before explaining the theory, and giving more practices during the teaching and learning process.

REFERENCES

- Burns, Anne. (2010). *Doing Action Research in English Language Teaching*. New York and London: Routledge.
- Cruttendan, Alan. (2001). *Gimson's English Pronunciation*. Sydney: Edward Arnold.
- Kelly, Gerald. (2000). *How to Teach Pronunciation*. Edinburgh: Longman.
- Kenworthy, Joanne. (1987). *Teaching English Pronunciation*. London and New York: Longman.
- Koshy, Valsa. (2005). *Action Research for Improving Practice*. London: Paul Chapman
- Journal of Research in Foreign Language Teaching*, Volume 1 (2), 2018

- Publishing.
- Moradi, Saeed. (2016). *Improving EFL learners' pronunciation using ClearPronunciation 2 software*. Iran: Chabahar Maritime University.
- Morley, Joan. (1991). *The Pronunciation Component in Teaching English to Speakers of Other Languages*. Michigan: The University of Michigan.
- Muna, Faizul. (2012). *The Use of Pronunciation Software to Improve Students' Pronunciation*. Semarang: UAIN Walisongo Semarang.
- Ogden, Ricard. (2009). *An Introduction of English Phonetics*. Edinburg: Edinburg University Press.
- Singh, K,Y. (2006). *Fundamental of Research Methodology and Statistics*. NewDelhi: New Age International.
- Skandera, P and Burleigh, P. (2005). *A Manual of Phonetic and Phonology*. Ausburg: Naar Sudienbucher.
- Sudijono, Anas. (2008). *Pengantar Statistik Pendidikan*. Jakarta: PT RajaGrafindo Persada.
- Yule, George. (1985). *The Study of Language*. Cambridge: Cambridge University Press.