



## **Discovery Listening to Improve Listening Competence in Fostering Students' Critical Thinking in Indonesia: Effect and Perception**

**Sukma Nur Ardini**

*Universitas Negeri Semarang, Semarang, Indonesia*

**Dwi Rukmini**

*Universitas Negeri Semarang, Semarang, Indonesia*

**Warsono**

*Universitas Negeri Semarang, Semarang, Indonesia*

**Dwi Anggani Linggar Bharati**

*Universitas Negeri Semarang, Semarang, Indonesia*

### **Introduction**

Living in the 21<sup>st</sup> century challenges Indonesian educators to be more concerned with discovering effective learning methods in order to stimulate students' critical thinking. Critical thinking is one of the so-called, "21<sup>st</sup> century skills" along with others like collaboration, creativity, and problem-solving. To survive in the era of globalization and to fulfil globalization needs one must master those skills. Bart (2010) proposes that "critical thinking is a crucial 21<sup>st</sup> century skill". Additionally, Singh et al. (2018) argue that being able to think creatively and critically enables students to face the real world. As the students in this study are the 21<sup>st</sup> century generation, they inevitably are required to have these skills. These skills are the focus of this study.

Teaching English as a foreign language in the 21<sup>st</sup> century does require critical thinking skills. English is the lingua franca to the world, which means the ability to use English has become a global requirement for those who want to be a part of the global society, especially in Southeast Asia (Kirkpatrick, 2007). The presence of English can be felt in all aspects of human life to fulfil the needs of the 21<sup>st</sup> century. It is underpinned by its wide use in a range of fields such as politics, diplomacy, international trade and industry, commerce, science and technology, education, the media, information technology, and popular culture (Crystal, 2003; Laufer, 2008). English mastery should include the four language skills that English learners need to master; they are listening, speaking, reading, and writing.

The four language skills are grouped into receptive and productive skills. Speaking and writing are productive skills, reading and listening are the receptive skills (Banditvilai, 2016; Juan & Flor, 2006). Osada (2004) defines listening as a passive skill, as it is an ability that would develop without assistance. Furthermore, he argues that listening remains one of the least understood processes, somewhat neglected and a poorly taught aspect of English. On the other hand, Flowerdew and Miller (2005) propose that more

than forty percent of our daily communication time is spent on listening, with thirty-five percent being dedicated to speaking, sixteen percent devoted to reading and only nine percent of our daily communication is spent writing. From that statement, it can be concluded that listening is the most important language skill compared to the other three. The Listening skill is beneficial not only in educational settings but also in workplace settings (Cooper, 1997; Sullivan, 2011). In the 21<sup>st</sup> century workforce, an employee is seen to be a good listener when they can summarize what they have been told and retell what they have learned to colleagues (Weger Jr. et al., 2010). Transmitting a workplace message via telephone without visual support by an unidentified speaker can also occur (Grognet & Van Duzer, 2002). A good listener takes a turn in a conversation, instead of interrupting others in the group who have not yet fully presented their thoughts. Those in the workplace will be expected to reflect on what they have heard, ask for clarification in the face of a misunderstanding, as well as make connections to what is being said (Cooper, 1997; Duwadi, 2014; Weger Jr. et al., 2010). In conclusion, upon knowing that many important elements in language learning are reflected in listening, Indonesian educators should prioritize listening as an important language skill.

In higher education contexts, the same tendency to neglect the importance of teaching listening skills also occurs. Some lecturers have a preference to focus on training their students in speaking and writing as they believe that those skills are more visible (Burns, 2013). The Listening skill has been rendered the “least researched of all four language skills” (Vandergrift, 2007). White (2008, p. 215) also highlighted, “we urgently need research to inform the development of effective listening materials, equipment, and teaching methodology”. Therefore, Vandergrift and Goh (2012) concluded that a more innovative approach to teaching listening is needed to help L2 listeners regulate their own learning. Further, Day (2017) notes that many listening tasks and practices have remained the same even after they have proved to be ineffective. Those statements support one researcher’s previous study (Ardini, 2015) which uncovered 65% of listening lecturers expressed that they need new techniques or methods to teach listening skills. They have been teaching listening through the same methods for many years. The method aims to find out whether students’ answers are correct or incorrect after listening to a passage which does not encourage critical thinking. Conversely, 35% of teachers indicate that they have applied various techniques and methods in the teaching process. However, even with the various techniques and methods, the desired outcome to meet the needs of 21<sup>st</sup> century skills where learners need to develop critical thinking has not been achieved. Moreover, lecturers have not shared mutual understanding that critical thinking in listening and the listening skill itself are essential and fundamental in language skill mastery.

To address the gap in the teaching method, this report proposes Discovery Listening (hereafter DL) (Wilson, 2003) to attain the desired outcome of critical thinking skills in listening as well as to meet the demands of teaching English as a foreign language in the 21<sup>st</sup> century. Teaching English to EFL students, especially with critical thinking as one of the elements, requires a method to stimulate and build their ways of thinking. Today, the methods involving students to find and experience the knowledge directly are believed to be effective. One of them is DL as stated in the work of Chinedu et al. (2015). This method requires students to have higher critical thinking. There are several steps to go through that demand students to process information, analyse a myriad of issues and to be curious about problems presented to them which will lead them to develop the skills to solve problems individually, cooperatively and creatively. To achieve these aims, lecturers need to introduce DL to their students. However, this is not something that is taught to the students, they need to independently discover it by being actively involved in the learning process.

With this in mind, the researchers conducted an experimental study which was aimed at investigating how DL can improve Indonesian students’ listening competence, particularly related to their high and low critical thinking skills. The study also examines the students’ perception of DL after they were introduced to and taught using DL in their listening classes.

## Literature Review

### Discovery Listening (DL)

Learning is constructed by discovery, which focuses on reflecting, thinking, experimenting and exploring. By any means, students are required to be active in the teaching-learning process (Bruner, 1961). Wilson (2003) defined Discovery Listening (DL) which, ‘... retains a learner-centered, task-based format that is compatible with current teaching methodology’ (p. 335). DL tries to achieve a focus on sound and word recognition by adapting the dictogloss approach, making it as the ‘task’ of listening for enhancing the listeners ‘noticing’ (Marzban & Isazadeh, 2012). Dictogloss was introduced by Wajnryb and Maley (1990, p. 7). It emphasises the hypothesis testing approach (Field, 1999) where students record the words they hear and predict their meanings by discussing them with their peers. The main goal is to guide students towards noticing the differences between their reconstructed text and the original, and then ‘discover’ the reasons for their listening difficulties. DL consists of three main phases:



Figure 1. Phases of DL tasks (Wilson, 2003, p. 337).

In the Listening phase, students listen to a short text spoken at normal speed without note-taking. Then, they self-assess their comprehension level. After that, they listen two more times while taking notes. In the Reconstructing phase, students work in small groups where they compare notes to attempt to reconstruct the text. The purpose of the reconstruction phase is to check and ensure that the students within the same group have a similar or different understanding of the text they listened to before. The last phase is Discovering where the students compare their notes with the original texts, discuss them with their peers and try to classify the causes of mistakes they made in the previous step. In this phase, students are required to assess the relative importance of their errors, then proceed to the last step by listening to the text again without reading it, and assess their performance.

### Listening Competence

Vandergrift (2007) states that listening has been rendered as the “last of all four language skills”. People often underestimate listening and tend to take it for granted. This kind of attitude had led to people ignoring the fact that this skill is important not only when learning a language, but it is also critical in daily activities, especially when interacting with people. It is a skill that is not easy to learn, as Vandergrift (2007) points out, because listeners, unlike readers, do not have the luxury of regular spaces that signal where words begin or end. Some students will find it difficult to recognize certain words due to a lack of familiarity and exposure to such words. If they had found it difficult to recognize the words, understanding the meaning of those words is an obvious challenge. However, regardless of the hurdles in acquiring listening skills, it does not mean that the skill is impossible to learn. Mendelsohn (2006) states that students can be trained to listen to any word they might recognize and then guess its meaning. With practice, students can get used to listening to spoken language in English. According to Othman and Vanathas (2004), teachers should be aware that focusing on the listening process is preferable to aiming for good listening test results. Moreover, Guo (2007) emphasizes placing all types of listening skills and

strategies first in a listening class, which could be essential for acquiring a comprehensive ability to listen effectively in different situations, with types of input, and for a variety of listening purposes.

## Critical Thinking (CT)

Any kinds of knowledge use the critical thinking concept and it also involves the true bond of learners to build the knowledge through reflection and deep thought (Saleh, 2019). The idea of critical thinking has been brought by John Dewey who called it “reflective thinking”. Reflective thinking is the kind of thinking that requires turning a subject over in the mind and giving it serious consecutive consideration (Dewey, 1933). In the field of education mostly in teaching English, Shalova (2015) states that critical thinking covers a wide range of skills and abilities in cognitive skills (thinking strategy) used for various academic tasks. Thinking critically means to display curiosity and use research methods that involve asking questions, the implementation of the systematic search for answers, the definition of a certain point of view about the issue and the ability to defend this view through logic and evidence.

Using new and challenging approaches to improve the 21<sup>st</sup> generation’s listening competence should become a crucial mindset for EFL lecturers such as those in Indonesia. They have to focus on the students’ listening process rather than focus on listening test results. The process should involve one of the crucial skills to master in the 21<sup>st</sup> century, that of critical thinking. The application of critical thinking in university is important since it can lead the students to a high degree of correlation with their achievements, extend the learning experience between them and their teachers, and make language learning more essential for them (Areni & Syafri, 2015; Shalova, 2015). DL is an approach which involves discovery phase realized by thinking. It means that DL embraces the need to improve listening competence through the 21<sup>st</sup> century skill of critical thinking.

## Method

This experimental research combined quantitative and qualitative methods to answer the research questions. Creswell (2012) states that experimental research design can be used when a researcher wants to establish a cause and effect relationship between independent and dependent variables. Therefore, this study aims to describe the effects of the DL learning method on the listening competence of the students who have high and low critical thinking.

The population of this study was 146 students from the 2<sup>nd</sup> semester of the English Education Department in a teacher training university in *Semarang* during the academic year of 2018/2019. The researchers took one randomly-selected class from the cohort, consisting of 30 students. After dividing them into high and low critical thinking levels by asking the students to fill in a questionnaire about critical thinking, the results showed that 12 students fell into the category of having high critical thinking skills, and 11 students reported low critical thinking skills. The remaining 7 students were not included as participants because they were at the medium level of critical thinking skills, thus did not meet the requirements as participants. In total, there were 23 student participants.

Data collection was done through observations, a critical thinking questionnaire, pre-tests, treatments, post-tests, and a structured interview. It began with an observation with a few participants then was followed by a larger group observation. A closed-ended questionnaire was distributed to investigate students’ critical thinking skills before they were tested. The Pre-test was designed to know the students’ prior knowledge before giving them the DL treatment. Its scores were used to calculate the homogeneity of variance of the sample. After that, treatments using DL were conducted for seven weekly sessions. A Post-test was used to measure the students’ listening competency after the treatments. The last data collection was through an interview to collect deeper and richer data from the participants.

There were two types of data analysis in this study; the quantitative analysis was to examine the listening skill (pre-test and post-test) and a critical thinking questionnaire. The qualitative analysis was to

analyze the observation checklist and interview transcripts. The researchers did the triangulation process (Patton, 2002) of both types of data through comparing and integrating qualitative data and quantitative data (Creswell, 2012; Creswell & Miller, 2000). The researchers used SPSS for analyzing and tabulating the numerical data. An ANOVA provided a statistical test of whether or not the means of the group were equal.

## Results

As previously mentioned, the objective of the study was to investigate whether DL could improve Indonesian students' listening competence along with their critical thinking skills. It also intended to examine the students' perceptions after they used the DL method. The findings are described in the following tables and paragraphs.

TABLE 1  
*Pre-test of Listening Competence for Students' with High Critical Thinking*

Class Limit	Class Boundaries	Pretest High Frequency		
40-45	39.5-45.5	1	Mean	57.00
46-50	45.5-50.5	3	Mode	47
51-55	50.5-55.5	3	Median	52
56-60	55.5-60.5	0	SD	11.072
61-65	60.5-65.5	1	Max	74
66-70	65.5-70.5	1	Min	45
71-75	70.5-75.5	2		
76-80	75.5-80.5	0		
81-85	80.5-85.5	0		
86-90	85.5-90.5	0		
Total		11		

The results shown in Table 1 indicate that the highest pre-test scores of students' who had high critical thinking was 74 and the lowest score was 45. By the interval of 5, it was found that the mean was 57.00.

TABLE 2  
*Pre-test of Listening Competence for Students' with Low Critical Thinking*

Class Limit	Class Boundaries	Pretest Low Frequency		
40-45	39.5-45.5	3	Mean	52.08
46-50	45.5-50.5	4	Mode	40
51-55	50.5-55.5	2	Median	50
56-60	55.5-60.5	1	SD	96.811
61-65	60.5-65.5	1	Max	76
66-70	65.5-70.5	0	Min	40
71-75	70.5-75.5	0		
76-80	75.5-80.5	1		
81-85	80.5-85.5	0		
86-90	85.5-90.5	0		
Total		12		

As shown in Table 2, the highest pre-test score of students' who had low critical thinking was 76 and the lowest score was 40. By the interval of 5, it was found that the mean was 52.08. Figure 2 depicts the listening competence of the students:

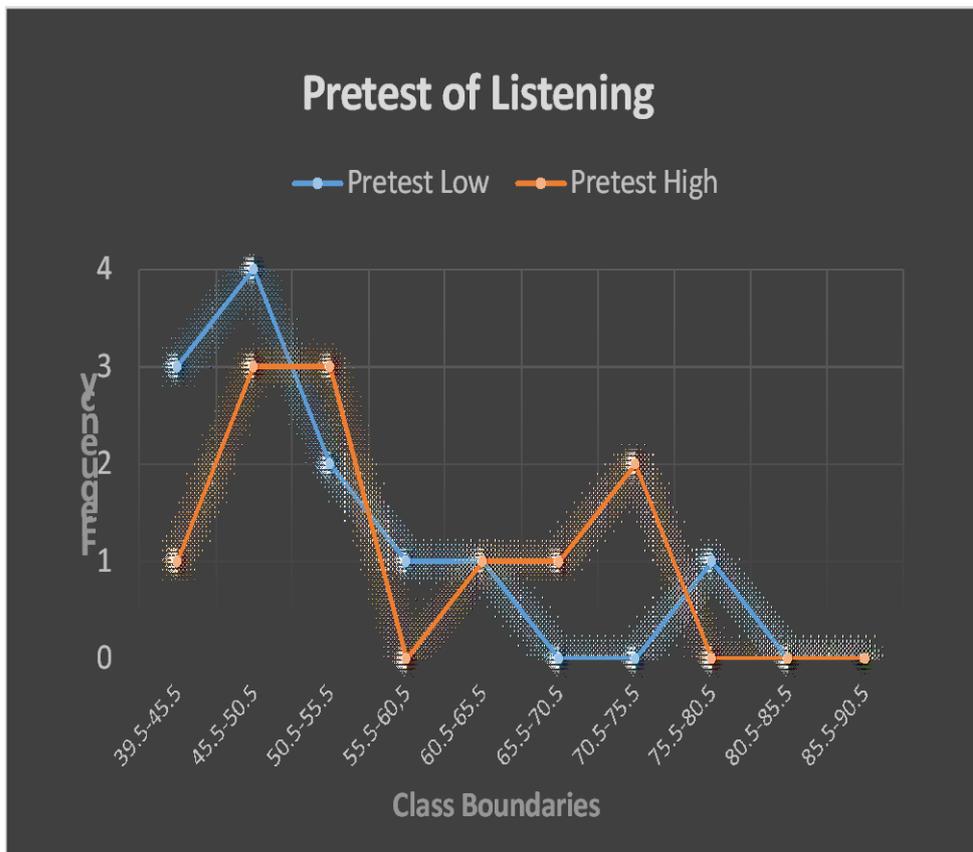


Figure 2. The pre-test of listening competence.

TABLE 3  
Post-test of Listening Competence for Students' with High Critical Thinking

Class Limit	Class Boundaries	Posttest High Frequency		
35-40	34.5-40.5	1	Mean	72.36
41-45	40.5-45.5	0	Mode	75
46-50	45.5-50.5	1	Median	74
51-55	50.5-55.5	0	SD	9.780
56-60	55.5-60.5	0	Max	86
61-65	60.5-65.5	0	Min	48
66-70	65.5-70.5	3		
71-75	70.5-75.5	4		
76-80	75.5-80.5	1		
81-85	80.5-85.5	1		
86-90	85.5-90.5	1		
Total		11		

Table 3 indicates the highest post-test score of students' who demonstrated high critical thinking was 86 and the lowest was 48. By the interval of 5, it was found that the mean was 72.36.

TABLE 4  
Post-test of Listening Competence for Students' with Low Critical Thinking

Class Limit	Class Boundaries	Posttest Low Frequency		
35-40	34.5-40.5	0	Mean	70.08
41-45	40.5-45.5	1	Mode	78
46-50	45.5-50.5	0	Median	75.5
51-55	50.5-55.5	0	SD	13.951
56-60	55.5-60.5	1	Max	86
61-65	60.5-65.5	1	Min	35
66-70	65.5-70.5	2		
71-75	70.5-75.5	1		
76-80	75.5-80.5	5		
81-85	80.5-85.5	0		
86-90	85.5-90.5	1		
Total		12		

Table 4 presents the highest post-test scores of students' who have low critical thinking skills. The highest score was 86 and the lowest was 35. It was found by an interval of 5 that the mean was 70.08. Figure 3 depicts the students' listening competence:

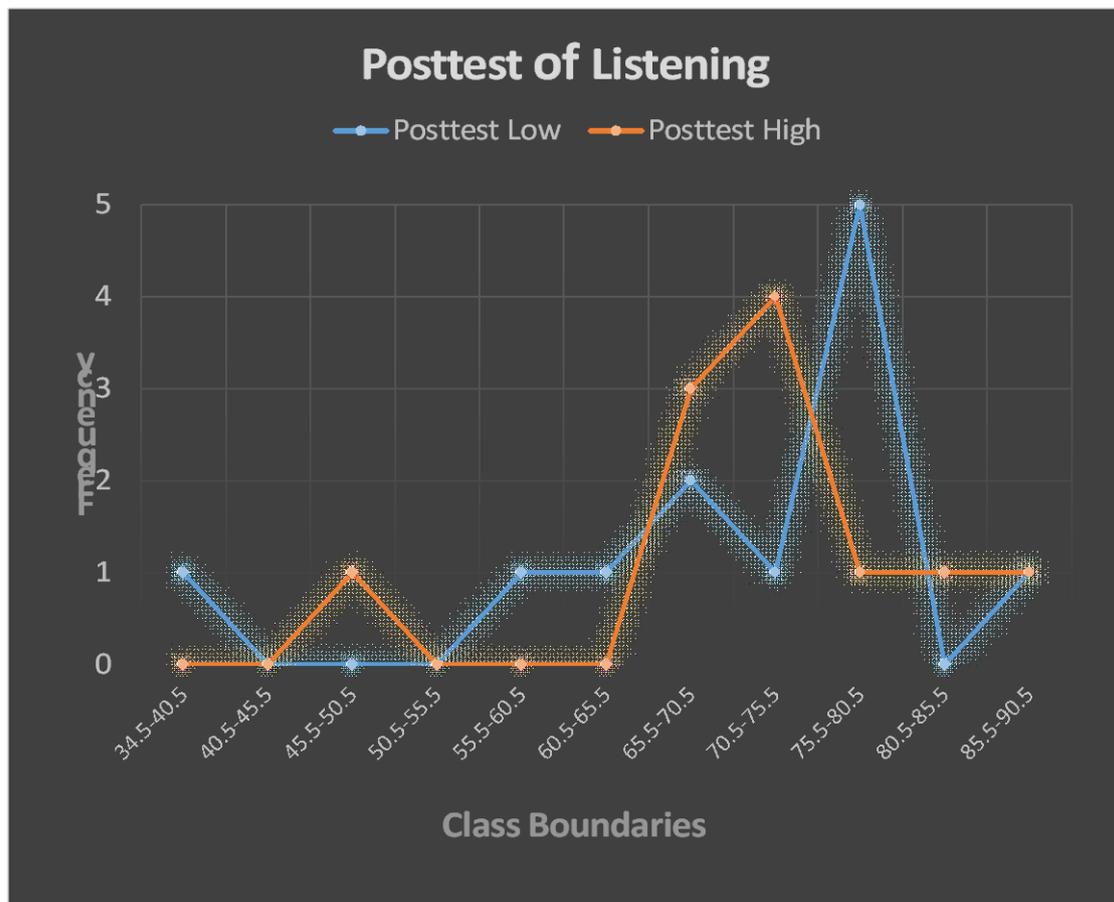


Figure 3. The pre-test of listening competence.

The interview was conducted after the DL treatment. The interview delved into the students' perceptions of DL and whether it improved their listening competence or not. The students also have different perceptions about DL. Results show that 70% of students had positive perceptions of DL and

experienced an improvement in their listening competency. Conversely, 30% of students had negative perceptions.

TABLE 5

*Interview Excerpts from Respondent 1 (R-1)'s Positive Perceptions*

Researcher	<i>What do you think of learning listening using DL that your lecturer has been implementing in listening class?</i>
Student (R-1)	<i>I think it's positive because it's interesting and I learn with enjoy.</i>
Researcher	<i>Do you feel that your listening competence has improved after learning using DL? How?</i>
Student (R-1)	<i>I feel it is improved because when I learnt my vocabularies were increased without consulting dictionary. I learnt from the context of the text.</i>
Researcher	<i>Did the learning method increase your critical thinking? How?</i>
Student (R-1)	<i>I think it did because it made me think harder than listening on the first semester. The test item which was with picture. It really difficult but when I focused on the audio I could answer it.</i>

TABLE 6

*Interview Excerpts of Respondent 12 (R-12)'s Negative Perceptions*

Researcher	<i>What do you think of learning listening using DL that your lecturer has been implementing in listening class?</i>
Student (R-1)	<i>Boring, because the speakers were too fast.</i>
Researcher	<i>Do you feel that your listening competence has improved after learning using DL? How has it improved?</i>
Student (R-1)	<i>No, because of less practice. The way the teacher taught was way too different from the first semester. This one is more complicated; the speaker speaks too fast.</i>
Researcher	<i>Did the learning method increase your critical thinking? How?</i>
Student (R-1)	<i>Yes, it makes me more focus on the test items. I need to concentrate to find the answers.</i>

## Discussion

The students received the DL treatment to discover its effect on students' listening competence both in students with high and low critical thinking. Based on those results, it can be concluded that students' listening competence had improved, which can be seen from the mean scores of the pre-and post-tests which went from 57% to 72.36% for those with high critical thinking and 52% to 70.08% for students with low critical thinking skills. It is proven that the post-test results are higher than the pre-test, showing that DL has improved students' listening competence.

Furthermore, the interview results revealed that there are positive (70%) and negative (30%) student perceptions regarding DL. They stated that DL is an interesting and enjoyable method. They also claimed that they could discover new vocabulary in listening class. Some of them also expressed that it was a novel experience since DL was new for them. Additionally, some voiced negative feelings towards DL. Most of these negative feelings were that it bored them. They explained that the speaker was too fast, and too difficult to follow which resulted in a lack of understanding of what the native speakers were talking about.

## Conclusion

The study uncovered Indonesian students' problems in listening. Sound and word recognition remained the most difficult exercises as indicated by their item scores; the speed of the native speaker's speech felt too fast and they could not catch what was said. A lack of vocabulary remained a problematic element in learning English including single words, phrases, and idiomatic expressions, and a lack of audio facilities was another external factor related to the learning of listening in Indonesia.

These findings might have implications for the development of the 21<sup>st</sup> century skills which must be implemented in listening competence as soon as possible. As such and in doing so, educators and students will see listening as a challenging and interesting subject, not as a subject that can be neglected and underrated.

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### The Authors

*Sukma Nur Ardini, S.S., M.Pd.* (Corresponding author) is a lecturer at the English Education Department, Faculty of Language and Arts of *Universitas PGRI Semarang*, Central Java, Indonesia. At present, she is studying in the English Education doctoral program of *Universitas Negeri Semarang*. Her research interests include Linguistics and English teaching.

Email: sukmanurardini@upgris.ac.id

*Dr. Dwi Rukmini, M.Pd.* is a professor at the English Language and Literature Department, Faculty of Languages and Arts of *Universitas Negeri Semarang*. She teaches Systemic Functional Linguistics and English Education. Her research interests include linguistics and Systemic Functional Linguistics.

Email: wiwidwirukmini@yahoo.com

*Dr. Warsono, Dip. TESL, M.A.* is a professor at the English Language and Literature Department, Faculty of Languages and Arts of *Universitas Negeri Semarang*. He teaches linguistics. His research interests include linguistics.

Email: warsono@yahoo.co.id

*Dr. Dwi Anggani Linggar Bharati, M.Pd.* is a senior lecturer at the English Education Department, Faculty of Languages and Arts of *Universitas Negeri Semarang*. She teaches English Curriculum, TEFL, and Research for ELT. Her research interests include curriculum and research.

Email: dwi\_anggani@yahoo.com

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