

# THE EFFECTIVENESS OF *BOTTOM-UP* AND *TOP-DOWN* APPROACHES IN THE READING COMPREHENSION SKILL FOR JUNIOR HIGH SCHOOL STUDENTS

**Rr. Vivy Kusuma Ardhani**

*SMPN 3 Yogyakarta.*

## ABSTRACT

Reading skill is taught in all level of education in Indonesia and it includes Junior High School. The standard of competence and basic competences of students' reading skills in the second semester of eighth grade SMP are to understand the meanings in simple short essays recount and narrative form. However, there are four main problems faced by the students in reading comprehension, such as finding general idea of a text, identifying the meaning of the word, finding main ideas and information. This situation is caused by several factors such as low motivation, limited vocabulary and monotonous teaching. This paper will discuss about the effectiveness of two reading approaches, they are bottom-up and top-down approach. The discussion will describe the concept of the approaches and the application of the approaches in the classroom by using experimental research.

**Key words:** *reading skill, bottom-up and top-down approach, Junior High School Student*

## INTRODUCTION

Reading is one of the most important language skills in the learning process. Reading is a process of critical reading and creative processing is conducted in order to obtain a holistic understanding of the text. Reading is also defined as one of the skills that are closely related to the most important basic skills, that is linguistics because in reading involves the introduction of symbols that make up a language. The main purpose is to absorb the information read from the smallest linguistic unit that forms a linguistics system such as grapheme,

morpheme, word, phrase, clause or sentence, and discourse contained in the passage, so that the reader must have good language competence. Thus, the reader will be able to capture and guess the meaning of a word in a particular context.

Reading skill is taught in all level of education in Indonesia and it includes Junior High School. The standard of competence and basic competences of English, reading skills for students that must achieved in the second semester of eighth grade SMP are to understand the meanings in simple short essays recount and narrative form. In this study, focused on the use of narrative text type because it requires both approaches in reading comprehension skills. The purposes of this study are to determine: (1) the effectiveness of the bottom-up and top-down approaches in students' reading comprehension of narrative texts; and (2) the more effective approach of bottom-up and top-down approaches in improving the students' reading comprehension of narrative texts.

However, there are four main problems faced the students in reading comprehension, the students still have difficulty in finding general idea of a text, identifying the meaning of the word, finding main ideas, as well as find information letter and spirit. This situation is caused by several factors such as lack of student motivation in learning English, the limited amount of vocabulary that they mastered, the lack of students' ability to master the skills of reading comprehension texts, and the use of the monotonous teaching technique focuses on the teachers themselves. Subyakto (1993:165) in Syarifuddin (2003:335) mentions two reading skills that can be used efficiently in reading comprehension, reading skills by the skimming and the scanning. Skimming means reading directly on the main idea, while scanning means the direct reading on the desired information.

To overcome the problems above, there are two main approaches in reading comprehension. The first approach is bottom-up, because it focuses on developing basic skills matching sounds by letters, syllables, and words written on the page. The second approach is top-down, which focuses on the background knowledge of the reader to understand a written text. Bottom-up approach was associated by teaching methodology called phonics, while the top-down approach goes to the theory schemes (Elba Villanueva, 2006:8). The advantages of bottom-up approach, students are directed to the words and parts of words, while the new meaning arising from a collection of words that are readable. Reading activities of bottom-up approach starts from a basic introduction of writing and sound then

recognize of the grapheme, morpheme, word, identification of grammatical structures, sentences, and text. The process of recognition of letters, words, phrases, sentences, and finally to the meaning of the text is a sequence that allows the students in achieving comprehension. While the benefits of top-down approach, the background knowledge of the students who have been very helpful in understanding the text.

Goodman (1978) in Syarifuddin (2003:328) added that the skills to obtain a general impression and find specific information will support the communicative approach and comprehensive in learning reading comprehension. The approaches are top-down and bottom-up. Learning by using a top-down approach aims to motivate students to predict the overall content of the text through the stages of reviewing the title, read the first and last paragraphs, and find the keywords contained in the text. By using a bottom-up approach, students are expected to master the vocabulary contained in the text making it easier for students to understand the content of reading. This paper will discuss more about two approaches in reading comprehension and discuss the application of the approaches in the classroom activities.

## **DISCUSSION**

### **Reading Competence**

#### **a. Reading**

Carrell et al (1993:12) argued definition reading "Reading is a receptive language process." Reading is an active activity because in the actual act of reading an interaction between the reader and the writer, while said to be receptive for the reader to act as recipients in a correlation of communication between the writer and the reader that is directly.

Definition reading by Hodgson in Tarigan (1985:7) is a process that is done and used by the reader to get a message to be conveyed by the writer by words or writing. In other words, reading is defined as a process conducted by a person to obtain the messages, information, or knowledge that is written by the words in written form or process of acquiring the message conveyed by the writer in written form.

Nurhadi (1987:13) described definition reading that "Reading as thinking and reading as reasoning." The process of reading involved the aspects such as

remembering to think, understand, distinguish, compare, find, analyze, organize, and ultimately implement the main ideas contained in the passage. From that argument, it can be concluded that reading is a process to understand the implied meaning from written language explicitly and understand the main ideas contained in the written words.

#### b. Reading Comprehension Skills

Grellet (1981:3) suggested the meaning of reading comprehension is “understanding a written text means extracting the required information from it as efficiently as possible.” From that argument, it can be concluded that reading comprehension is an effective process to understand the text, to remember, and to organize the material that is read with the proper reading techniques for the purpose of reading activities can be achieved.

Nunan (2006:71) elaborated the definition of reading comprehension is “Reading comprehension refers to reading for meaning, understanding, and entertainment. It involves higher-order thinking skills and is much more complex than merely decoding specific words.” Reading comprehension leads to understanding the meaning of words and the overall meaning of the text. This case involved the higher ability of thinking patterns and more complex than reading word for word. Reading comprehension is reading skills to understand main ideas, important details, and the entire of the meaning text.

Reading comprehension is closely related to the effort and the ability to remember the material being read and understand the important things in the text. Things that are necessary for understanding is mastering vocabulary and closely with the basic structure of writing such as sentences, paragraphs, and other linguistic characteristics. Therefore, in reading comprehension is a process undertaken to interpret what they read based on existing knowledge about the topic being presented.

### **The Learning Approaches in Reading Comprehension**

Approach in language learning refers to the theories about the nature of language and language learning that serve as a source foundation / principles of language teaching. According to Brown (2000b:298-299) explained that there are

three views of how meaning is obtained which spawned three theoretical models of reading. Three models of the theory are, bottom-up approach, top-down approach, and interactive approach.

### 1) Bottom-up approach

Harris and Sipay (1985:8) stated that: "According to bottom-up models, reading is essentially a process of translating graphic symbols into speech during oral reading into inner speech during silent reading." The essence of reading process according to this theory is the process of encoding re-written speech symbol.

Brown (2000b:298) reinforced that opinion by stating that the bottom-up process of reading first know the various linguistic signs, such as letters, morphemes, syllables, words phrases, grammar instructions and discourse mark, then use a processing mechanism that makes reasonable, coherent and meaningful. In simple terms, reading in bottom-up process is a process that involves the accuracy of sound, perception and identification of a series of letters, words, spelling patterns, and other language units. Bottom-up approach in reading comprehension is intended to process the information contained in the text by understanding word by word to a sentence by sentence to check the correctness of the contents of the text. As for the theory of processing in reading comprehension with a bottom-up approach is described as follows.

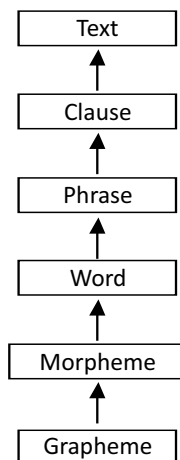


Figure 1. Reading Comprehension Processes of Bottom-up Approach

## 2) Top-down approach

Harris and Sipay (1985:9) argued that:

“In top-down models the readers's prior knowledge and cognitive and linguistic competence play key roles in the construction of meaning. Before, or softly after, any graphic input, the reader generates hypotheses regarding the meaning of the printed material. These predictions are based on the reader's prior knowledge of the topic, the specific content of the material, and syntactic parsing (interpreting the words in their particular grammatical function).

In the top-down approach, the reader must first have the knowledge, comprehension, and language skills play a major role in interpreting the meaning of the text. Readers make the hypothesis about the meaning of the reading material. Predictions are based on the knowledge of the reader to interpret the title, to understand the meaning of specific reading, and outlining syntax. It can simply mean that the reader in a top-down approach to interpreting and predicting text based on that knowledge.

Keiko Hayashi (1999:120) explained definition of top-down is: "Top-down processing is conceptually driven strategies such as prediction, background knowledge, thinking of authors' idea, contextual guessing, association with the image, and finding clues." Process top down is like predicting strategies in reading, knowledgeable, able to capture the idea of in essay, guessing contextually, combine the ideas, and search the keyword. The knowledge is the most important part in predicting, guessing, and understand the entire contents of the text at a time using a top-down strategy in reading comprehension. As for the theory of processing in reading comprehension with a top-down approach is described as follows.

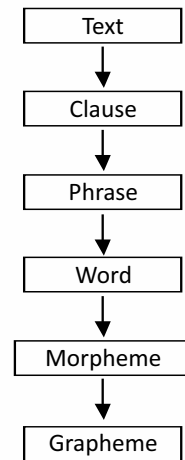


Figure 2.  
Reading Comprehension  
Processes of Top-down  
Approach

## **The Application of Reading Approaches in the Classroom**

The application of bottom up and top down approach in the classroom was taken from quasi-experimental research. This research was aimed to explain the effectiveness of bottom-up and top-down learning the student's reading comprehension of narrative text in grade VIII SMP. In addition, to find out the more effective approach of bottom-up and top-down approaches in improving the students' reading comprehension of narrative texts in VIII grade SMP. This experimental research was designed by using pretest-posttest control group design. In this design, there were three groups: two experimental groups and one control group were chosen randomly, and then given a pretest to determine the first condition was there any difference between the experimental group and the control group. In the experimental group were treated, while the control group was learning as usual.

The population was all of the grade VIII students of SMP Negeri 3 Yogyakarta. The sample was students of class VIII A, B, and F of SMP Negeri 3 Yogyakarta established using the simple cluster random sampling technique. Class VIII F was as the experiment group 1, class VIII B was as the experiment group 2, and class VIII A was as control group. There were two variables:

- a. The independent variable (X) is a learning approach. In this study, there are two approaches, namely a bottom-up and top-down approach.
- b. Dependent variable (Y) is the reading comprehension of narrative text.

The data were collected using a *multiple-choice* test of narrative text. In reading comprehension tests done by identifying the main idea (title, theme, subject matter), detailed information express, implied information, reference the word, and the meaning of words, phrases and sentences (including vocabulary and other linguistic characteristics related to the type of text and themes ). The scoring was by giving the correct answer 1 and 0 on incorrect or blank answers. Learning process was conducted in 12 meetings. The results of the pretest and posttest in reading comprehension of narrative text before and after a treatment can be seen in table 1 below.

Table 1.  
Score Pretest and Posttest in Reading Comprehension of Narrative Text

No.	Eksperimen 1 Kelas F ( <i>Bottom-up</i> )		Eksperimen 2 Kelas B ( <i>Top-down</i> )		Kelas Kontrol Kelas A	
	Pretes	Postes	Pretes	Postes	Pretes	Postes
1	66	77	69	74	54	51
2	54	74	54	57	71	66
3	54	69	69	71	66	60
4	63	74	74	80	51	51
5	54	63	60	57	66	60
6	83	89	57	54	77	63
7	69	71	60	57	51	51
8	60	77	57	57	60	54
9	51	69	60	71	60	54
10	54	66	60	57	83	77
11	60	77	63	63	51	51
12	57	69	63	60	74	71
13	69	80	71	77	83	77
14	57	86	83	86	63	57
15	71	71	71	69	80	74
16	71	69	51	57	54	54
17	57	63	51	54	83	71
18	51	86	57	63	54	51
19	63	66	51	57	54	54
20	54	74	74	83	51	51
21	69	69	60	63	60	57
22	60	71	69	66	57	57
23	54	71	63	60	60	54
24			71	80	54	51
25			60	57	57	54



Meanwhile, the description of Pretest and Posttest in Reading Comprehension was as follows:

Table 2.  
The description of Pretest and Posttest in Reading Comprehension

	Eksperimen 1 Kelas F ( <i>Bottom-up</i> )		Eksperimen 2 Kelas B ( <i>Top-down</i> )		Kelas Kontrol Kelas A	
	Pretest	Posttest	Pretest	Posttest	Pretest	Posttest
N	23	23	25	25	25	25
Mean	60.9130	73.0870	63.1200	65.2000	62.9600	58.8400
Median	60.0000	71.0000	60.0000	63.0000	60.0000	54.0000
Standard Deviation	8.12915	7.03183	8.20731	9.88264	11.13732	8.74967
Minimum	51.00	63.00	51.00	54.00	51.00	51.00
Maximum	83.00	89.00	83.00	86.00	83.00	77.00

It can be concluded that there were a differences between in teaching learning effectiveness of bottom-up approach, top-down approach, and conventional in reading comprehension of narrative text in grade VIII students of SMP. Based on these result, there were three hypothesis:

1. The bottom-up approach is effective to be applied in reading comprehension of narrative text in grade VIII SMP.
2. The top-down approach is effective to be applied in reading comprehension of narrative text in grade VIII SMP.
3. The bottom-up approach is more effective than top-down approach in the students' reading comprehension of narrative texts.

## CONCLUSION

Bottom-up and top-down approach are two approaches that can be used in learning reading comprehension. It is proven by the research that bottom-up and top-down approach are effective to be applied in the students' reading comprehension of narrative texts.

However, another result shows that bottom-up approach is more effective than top-down approach in the students' reading comprehension of narrative texts. This fact occurs since the data is taken from Junior High School Students who are considered as young learners. Bottom up approach is appropriate with students' characteristics that tend to build the understanding from low level skill to advance skill.

Thus, teachers and candidate of English teacher can use the bottom-up approach as an alternative in learning reading comprehension text to improve students' vocabulary and reading skill.

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