
Improvement of reading comprehension and rhetoric speaking skills of elementary school students through mind-mapping strategies

Ari Kusmiatun

*Language and Literacy Department
Faculty of Languages and Arts
Yogyakarta State University*

Abstract: *This action research study aimed at improving students' skills in reading comprehension and rhetoric speaking through mind-mapping strategies. The study was conducted at SD Muhammadiyah Purwodiningratan 2 Yogyakarta. The subjects were 29 students in the VIa class consisting of 17 boys and 12 girls. Data were gathered by the use of intensive observations, questionnaires, and interviews. The study was conducted in two cycles. The results showed that the application of mind-mapping strategies in Bahasa Indonesia teaching-learning process, could improve students' speaking and reading skills". Students were able to comprehend the passage better and perform rhetorical speaking more fluently. Similarly, students' speaking skills in both language and non-language aspects improved significantly.*

Keywords: *reading comprehension, rhetoric speaking, mind mapping strategy, silent reading, oral reading, communicative language skills, motivation, reading texts*

1. Introduction

Language plays an important role in human life. It is a means of verbal communication possessed by human beings and it is the mental connector important in living with others (Dewey in Soenjono, 1983, p.20). The final result is language skills. Language skills, enables one to communicate with others.

Language skills can be developed through formal institutions, such as schools. Language skills include listening, speaking, reading, and writing. All these language skills become parts of the language teaching-learning processes to be mastered by the students.

Language skills can be developed in an integrative way. Receptive and productive capabilities can be developed together so that these can be useful in the teaching-learning processes. However, training language skills is not simple. The same thing happens in the teaching-learning processes in of reading and speaking skills which have not yet been successfully achieved.

One phenomenon in education, from elementary to university student levels, is that students still find reading and speaking exercises not fun and difficult. At the university-level, many students seem unwilling to read and tend to be passive during the teaching-learning

process (attend classes, sit down, listen, then go home). This apprehensive condition absolutely needs more attention.

The most basic level of schooling is elementary education. Things achieved in the elementary school will guide and become students' foundation for the following level and, later in their working environment (Harafa, 2000). For this reason, elementary education is very important. This case equally applies to SD Muhammadiyah Purwodiningratan 2 Yogyakarta.

SD Muhammadiyah Purwodiningratan 2 Yogyakarta is one of the prestigious private elementary schools in Yogyakarta. This means that it offers quality education. However, there are things that still need to be improved. Teachers complain about the reading comprehension and rhetorical speaking skills of their students.

According to the teacher's statement (March 18, 2007), various problems are found in students' reading comprehension skills. It is students' difficulty to comprehend the passage fully and fast. This is shown by the students' inaccurate and incomplete answers to comprehension questions. In speaking, students face some obstacles in retelling the text in question. Students often stammer in answering the teacher's questions, although they can answer them in the written forms. In the teaching-learning processes, the teacher sees students' lack of autonomy. They have the tendency to depend on the teacher and that makes them tend to be passive. It needs a long time for them to answer the questions from a text. Moreover, they seem to be inferior, they are unconfident, inaccurate, and unenthusiastic.

Based on this situational analysis, one alternative solution is applying different strategies in the instructional processes. "Mind Mapping" is such a strategy that is applied to integrated learning of reading and speaking skills. It is chosen on the basis that there is in this strategy easy concept memorization which is not only easy but also fun throughout the class interaction. Students will be involved actively in the teaching learning processes. Moreover, this strategy makes use of students' creativity and their oral capability to present their creativity products. Hence, the intensive teaching-learning process between reading and speaking will be effective as well as fun for the students. It is expected that the Bahasa Indonesia teaching-learning processes, especially in language skills, can be fun, effective, creative, and active.

2. Problems and Objectives

According to the given backgrounds above, the research question can be formulated thus: How can the reading and rhetoric speaking comprehension of SD Muhammadiyah Purwodiningratan 2 students be improved through the application of mind mapping strategy? To follow the research question, the objective of the study is to improve students' reading comprehension and rhetoric speaking skills.

3. Literary Studies

a. Language Teaching in the Elementary School

Language teaching-learning is a process of 'teaching' language to the students. Brown (2000, p.7) defines learning in relation to some aspects, one of which is that learning language is the "retention of skills". Chomsky (in Parera, 1986, p.21) states two main purposes of teaching language on the same line. Somebody who learns a language is said to be able to speak if he: (1) has the knowledge of the language (a speaker's competence), and (2) has the ability of using the language (the speaker's performance).

Bahasa Indonesia I as offered in the elementary school is a start of giving the knowledge and skills of speaking. But, it is in the elementary school that the basic foundation

of education is placed. The elementary school is a place for students to explore their needs of learning their surroundings Coles (2000, p.119). Elementary school students will be able to memorize their knowledge and experiences directly. This means that students will be more able to comprehend the teaching-learning processes if they experience themselves what is being taught. This is learning by doing. Language instruction will be meaningful if it is aimed at students' activity of working and experiencing, instead of only the knowledge transfers from teacher to students (Nurhadi, 2000, p.1). The same concept is stated by Brown (2001, p.54) with one of his teaching principles in relation to learning by doing (to learn it, do it). The teaching and learning of language will be meaningful with direct, integrative, and continuous practice. This way, all language skills can be developed simultaneously and dynamically.

b. The two Language Skills: Reading Comprehension and Rhetoric Speaking

Reading is an active-receptive language skill. It is an important part in any teaching-learning process in any level of education. There are various definitions of reading. For one, reading is a thinking process which includes translating, interpreting, and applying ideas from symbols (Carter in Wiryodijoyo, 1989, p.1).

There are some kinds of reading as a language skill. Harras and Sulistianingsih (1997, p.21) group reading into some types, namely: silent, loud, extensive, intensive, literal, critical, creative, comprehensive, and esthetic reading. Comprehensive reading or reading comprehension is reading which is not only pronouncing symbols but also deriving information that is read, comprehended, and meant. Tomkins and Hokisson (1995) state that reading is a transactional process wherein readers negotiate meaning or interpretation.

Another language skill which is also an active-productive skill is speaking. Speaking is verbal language expression that needs a meeting between speakers and helped by speakers' hand movements and mimics (gestures) (Arsyad, 1988, p.25). Speaking becomes the most important human means of social control. Tarigan (1984, p.15) states that speaking is a form of human's attitude using extensive physical, psychological, neurological, semantic, and linguistic factors.

Speaking includes two aspects: rhetoric and dialectic. Rhetoric speaking is a form of individual verbal communication. It means that somebody has the competency to speak or to utter ideas orally such as in a speech, lecture, and so on. On the other hand, dialectic speaking needs partners and language skills which present active speakers.

c. Mind Mapping: A Teaching-Learning Strategy

Mind mapping is a strategy which helps learners in controlling their minds into the form of mapping words or concepts. In other words, mind mapping is a strategy for helping students order and structure their thinking through mentally mapping words or/and concepts (<http://www.instructionalstrategiesonline>). Through mind mapping which uses words and concept key, students can remember and review material fast and accurately.

This strategy does not need much time and energy. It even is a simple strategy. It has some characteristics in that it has existence of organization, keywords, association, clustering, visual memorization, and outstanding and conscious involvement. Mind mapping helps in organizing the given information. This strategy can be developed into students' group work and in many kinds of teaching-learning processes.

d. Mind Mapping Strategy in Reading and Speaking Teaching-Learning Processes

Mind mapping strategies can be adapted in many fields of study, including reading. In reading skills, mind mapping is placed in the end or post phase of reading. After reading a text,

students are expected to be able to make “mind map” according to the information grabbed from the passage. The mind mapping result will present the students’ ability in memorizing the passage. Then the activity will be continued by the students’ skills in speaking. Students preset their mind mapping and at the same time measure their ability in retelling the passage. Here is the teaching-learning process presented with mind mapping application:

- 1) Teacher gets the students ready for the teaching-learning process.
- 2) Teacher and students discuss text choice and pre-reading steps.
- 3) Teacher hands the students the text.
- 4) Students read the text.
- 5) Students group themselves.
- 6) Teacher withdraws the text and students make their mind maps.
- 7) Students present their mind map.
- 8) Teacher makes evaluation on the students’ work.

4. Research Methodology

This study is the result of classroom instructional activities. The study takes place in SD Muhammadiyah Purwodiningratan 2 Yogyakarta and for the duration of 9 months. The subjects of the study are 29 students of Class VIa class consisting of 17 boys and 12 girls.

The techniques used in collecting the research data are intensive observation, giving questionnaires, and interviewing. The observation is done accurately and intensively to get data in the form of the descriptive accounts of interaction during the teaching learning processes of rhetoric speaking and reading comprehension. The interview and questionnaire are used to collect data which can reveal a specific research aspect and strengthen the other ideas. The rhetoric speaking and reading comprehension skills data are taken from reading tests, speaking assignments, and mind mapping works made by the students. Evaluation is done verbally and in written forms.

Data are analyzed by using quantitative and qualitative techniques. Quantitative analysis is used to analyze quantitative data in the form of students’ reading and speaking skill evaluation results. Qualitative technique is used for qualitative data in the form of field notes and field observation results. Two indicators are used: process success and result success. Process success is determined when there is improvement in speaking and reading, fun, enthusiasm, and so on (see indicators in the observation sheet). Result success is measured by students’ increasing scores in the two language skills of reading comprehension and rhetoric speaking.

Data validity used is compatible with Burns (1999, p.161-162), namely (1) democratic validity, (2) process validity, and (3) dialogic validity. Data reliability is done by triangulation. Data resulting from field notes and observation results are crosschecked, so are data resulting from interviews and questionnaires. Besides, research data reliability is achieved through seriousness, collaborative work, and discussion Elliot and Adelman (Burns, 1999, p.163).

5. Findings and Discussion

a. Research Cycle Realization Description

1) Early condition report

This study began with a pre-survey activity. Preceding condition faced in this session became the basis for the implementation cycle. From pre-survey observation it was observed that students were quick-adapted to unpredictable situation. This was shown by the students’ quick attention to the upcoming materials. It was true that some students did approach the observer and asked who and what she was doing in the class. Some other asked the teacher the

same question. However, all students soon paid attention to the teacher when she told them what activity was to be done in the time being.

It was observed that students were not familiar with silent reading but they were familiar with loud reading. Students tended to be noisy and the teacher was not able to calm them down. She used texts from various sources and the teaching-learning process was not anymore 'traditional'. She also did the evaluation during the teaching-learning process. Reading activity was done twice with several questions from the teacher. Having finished reading the text, she called on students one by one to come up to the class to express the ideas in the text in their own words. It was done randomly in order to get the students ready to come forward in front of the class.

2) Research cycle report

With the observation results in pre-survey activity, the researcher team had a discussion and made the plan for the 1st cycle actions. Previously, in the beginning of research coordination, the researcher team and the teacher made a general research plan including implementation time, implementation material, research focus, and task and each role and other important things to do in the study. Specifically, the preparation of each cycle was done in the cycle planning level. In the first cycle, the plan included material, planning pattern, learning facilities, time allocation, and instrument needed.

Four meetings were done in the first cycle. Some successful things happened. The teacher applied the mind mapping strategy (as planned), students were conditioned well, the noisy class was no more, time allocation was good, the teacher's class organization was good, the evaluation ran well and directed fully. One obstacle was concerned with the inharmonious implementation pattern. It made mind mapping not be the students' measurement of comprehending the given text. The teacher tended to dominate the class; she helped the students too much and ignored the other annoying students. Students were not yet fully autonomous and needed the teacher's inducement to be active orally. The same materials to all groups made the students get bored.

Paying attention to successes and weaknesses coming out of the first cycle through reflection, improvement was planned for the 2nd cycle. This was done in three meetings. A microphone was provided for to help the low-voiced students. Every group had different passages from another but was in the same level of difficulty in order to avoid boredom.

The 2nd cycle reflection results showed that many aspects improved in the students' speaking and reading comprehension skills. It was strengthened by the score analyses taken by the teacher. The teaching-learning process was better. Class interaction was conducted well and gave better results both in process and product. The teacher felt satisfied and decided to end the study in this cycle.

3) Research finding presentation

Table 1 presents data description to be the basis for revealing the research findings. The data included both students' reading comprehension skills and rhetoric speaking skills.

Table 1. Students' Skill Evaluation Processes by Observation Aspects, Observation Aspect Analyses, Pre-survey Data, 1st Cycle Data, and 2nd Cycle Data

Observation Aspects	Observation Aspects Analysis	Pre-Survey					1 st Cycle					2 nd Cycle				
		P	L	E	G	VG	P	L	E	G	VG	P	L	E	G	VG
Answer Accuracy (Memory)	Students answer teacher's question of the passage accurately					*					*					*
	Students answer teacher's question of the passage but is less accurate			*					*					*		
	Students answer teachers' question of the passage but is inaccurate		*				*				*					
	Students are not able to answer teacher's question	*					*				*					
Reading Comprehension	Students comprehend the passage well				*					*						*
	Students less comprehend the passage			*			*					*				
	Students do not comprehend the passage	*					*				*					
	Students are able to interpret the passage well		*					*							*	
	Students are less able to interpret the passage			*				*					*			
	Students are able to answer applicable questions well							*							*	
	Students are not able to answer applicable questions well							*					*			

Explanation:

P = Poor
L = Less

E = Enough
G = Good

VG = Very Good

The above table shows that a change happens in students' answer accuracy and the quality and quantity of their reading comprehension. That is grabbing process evaluation in students' reading skill achieved orally in the teaching-learning process.

The data were taken from written students' score analyses. In the 1st cycle, three students achieved a maximum score of 100, and six students achieved a score below 70. In the 2nd cycle, however, 15 students achieved the maximum score of 100 and the lowest score was 80 achieved by three students.

b. Discussion

In this study, the research team focuses on the students' reading comprehension and rhetoric speaking ability skill improvement. For this reason, the discussion will be split into two parts respectively.

1) Improvement of Students' Reading Comprehension Skills

This study indicates that the mind mapping strategy can be used to improve students' reading comprehension skills. The best thing that happens here is the improvement in the process.

Students of SD Muhammadiyah Purwodiningratan 2 are fast learners. Most of them have good ability and are quite good in reading. It is the reading teaching-learning process that becomes an obstacle for them. This needs to be handled.

Through learning activities applying the mind mapping model, students seem to get a brand new fun thing. Not only did they comprehend the given text, but also they were playing and relaxing. Competition among groups made them feel more enthusiastic. This kind of condition was found in 2nd cycle when the students were busy doing their assignment (i.e. mind mapping); even before the teacher began the teaching-learning process.

The teacher comes to the class at 08.22. At that time students are seated in groups. They are busy finishing their mind mapping. There are some students drawing mind mapping symbols, some other painting it,, They are enthusiastic in doing their mind mapping.

(Field Notes/ 21.11.07)

Students' interest to keep studying in the end of teaching-learning process is shown when some students asked the teacher to keep going on although the time was already up. The same thing happened with students' answers when the teacher asked classically about the effect of the teaching-learning process. Many students gave good responses on the mind mapping strategy.

When the teacher asks them whether they like memorizing the passage or making mind mapping, the students replied that they like making a mind mapping. Some say that this is fun, he does not feel sleepy during the lesson, he does not feel bored, he is happy. Even some students ask the teacher to get them to often doing mind mapping.

(Field Notes/ 22.11.07)

The majority of the students were able to answer the teacher's questions about the text correctly. This was known from pre-survey for the 2nd cycle. Only few students were not able to do it. Working in groups made the students easier to do the tasks and work together in answering the teacher's questions. The students' comprehension and interpretation of the text was also improved by mind mapping. In the end of the cycle, students were more competent in answering applicative questions from the text indicating that they were not only memorizing but they were also able to apply the interpretation of text meaning. This is the reflection of reading comprehension.

One thing was that students' tended to get easily bored with the same condition so that the teacher had to improve his creativity and improvisation. It was shown in the end of the first cycle where the students were given the same texts and then they got bored easily. The teacher was able to overcome it by giving various texts in the 2nd cycle which also made the students interested in the other students' presentation.

2) Improvement on Students' Rhetoric Speaking

Students' speaking skill improvement happens significantly. Speaking problems were relatively bigger than reading comprehension problems. Students have ability to memorize the learning process well, but they cannot communicate it to others. In another way, their rhetoric speaking ability is low and this becomes an obstacle for them. But, students are hoped to be able to and are able to speak through mind mapping. Only in this occasion does the teacher put in speaking material and train speaking to them.

Students' skill was drastically improved in the 1st cycle and getting better in the 2nd cycle. This improvement happened in both the language and non-language aspects. In the language aspect, utterance accuracy, word choice, and target discussion were processed well. In the non-language aspect, students were getting better in manners, eye contacts, gestures,

fluency, voice volume, reasoning, and topic mastery.

Speaking skill improvement can be seen in the given evaluation result table. The teacher's direction also gave a better meaning to the students so that their speaking manners were getting better. Students' confidence was also improved. Moreover, in 2nd cycle the students were helped by the microphone for low-voiced students.

In the 1st cycle, students were still unsure to speak and still seemed afraid of expressing their opinions. In the 2nd cycle students' confidence was formed so they looked more confident, and relaxed to present their products. This was shown in the portrait of the non-language condition in the 2nd cycle. The teacher perceived this fact and felt satisfied with the teaching-learning process.

c. Conclusion

In conclusion, the application of the mind mapping strategy in Bahasa Indonesia speaking and reading teaching-learning process can improve students' skills. Students are able to comprehend the text better and were more fluent in rhetoric speaking. The ability to comprehend the text is balanced with the improvement of their learning process. They feel happy, enthusiastic, and interested in the reading activity. Similarly, students' speaking skills in the language and non-language aspects are improved significantly. They are getting better in processing words, are more polite in speaking, and show good performance when speaking. Their attitudes, confidence, gestures, and speaking fluency are getting better.

d. Suggestion

Some suggestions can be proposed following the discussion of the research findings. Three of these are as follows:

- 1) For students, the treatment of the speaking and reading comprehension skills should be balanced in order for them to get good and communicative language skills.
- 2) For teacher, creative and innovative motivation in Bahasa Indonesia teaching-learning process will be better if it is well-developed, such as by using mind mapping strategies. This way, Bahasa Indonesia will not be a boring lesson.
- 3) For the school, supporting facility supplies should be given more attention and for all the students so that teaching-learning process can be maximized which, on its turn, will give better results.

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