
IMPROVING STUDENTS READING PROFICIENCY USING BIONIC METHOD (A CLASSROOM ACTION RESEARCH AT 10th GRADE STUDENTS)

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Abstract: The purpose of this study was to improve the students reading ability by using bionic method at 10th grade students. This research was a classroom action research (CAR) and it was conducted in two cycles. Each cycle consisted of four stages namely planning, acting, observing and reflecting. The subject of this research were 30 students. The data collection method of this study were test, observation, field notes and documentation. The result of this study showed that there was a significant improvement from first to second cycle. The average at first post test was 67 with the percentage of students successful achievement 63 % and the last cycle, the average score was 72 with the percentage of students successfulness 75 %. It means that the indicator of Minimum Mastery Criteria (MMC) has been achieved at least 70 % students were completed. This result indicated that using bionic method could improve students reading proficiency significantly at 10th students of Senior High School.

PENDAHULUAN

The era of industrial revolution 4.0 required us mastering international language. Everyone in the world connected quickly. English as one of international language which used in almost all of international interactions. English has an important role in the development of information, communication and technology nowadays. Indonesia Government has decided that English should be taught as a compulsory subject at Junior High School. Based on School Based Curriculum for Junior High School, the purpose of teaching English in Junior High is the students are able to reach functional level such as communicate in spoken and written language especially English in their daily interaction. The development of technology and science create changes in human life, we can get information quickly and accurately. Technologies are becoming increasingly complicated and interconnected. Technological advancements are altering life around the world in both positive and negative ways. In order to get information from written sources, we should have a good reading ability to understand it comprehensively. Reading activities for students can stimulates their imagination and expands their understanding. It helps them develop their reading ability and prepares them to understand the written word. Having strong reading abilities can enable you to interpret, find meaning in all that you read and when you

continuously improve these ability, you can develop your ability to communicate effectively.

Reading proficiency is a person's capacity to read, comprehend, interpret and decode written language and texts. This is the essential skill required for academic success that can be highly beneficial to assimilating and responding written communications. It can also encompass several key aspects that work together to develop overall literacy skills including comprehension, fluency, vocabulary and strategies that help students interpret and find meaning in texts. Reading teaches the students new words and perspectives, it helps strengthen language and sharpens sentence structure. The ability to read texts in English is very crucial as a bridge to understand the texts completely. It can used to find main idea of the texts, identify the use of interference, guess unfamiliar words meaning, find details information fully and differentiate literal – nonliteral meaning. Reading has a major function in opening up the horizon of knowledge to be wider significantly.

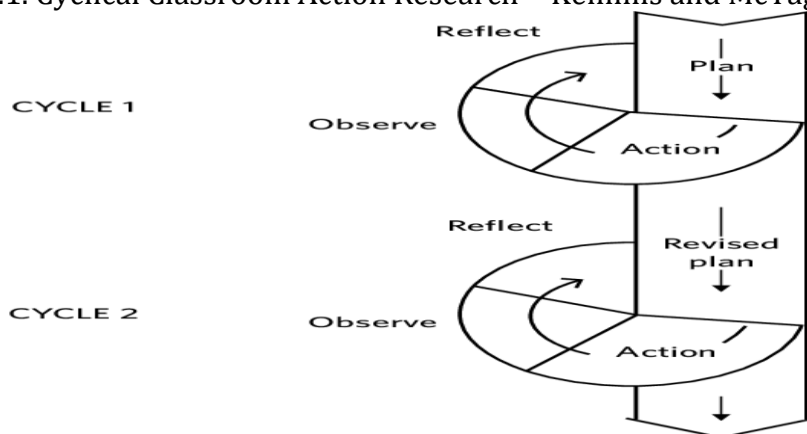
The students at Junior High School usually faced problem related with reading proficiency. A crucial problem was found in relation to reading proficiency was they did not understand what they read, difficult to find out the main idea or the content of the text, lack of vocabulary and low in grammatical structure. The students told that they face difficulties in gathering, comprehending and identifying main idea of the texts fully. They did not understand how to get the general and specific information of reading texts. The students did not have an ability to determine main idea and supporting idea clearly. They have low motivation in reading and teaching method used by the teacher was unattractive and monotonous. The inability to understand the context could created misunderstanding. Besides those problem, there are some another factors that create students still have low proficiency in reading. One of them was teacher did not use appropriate method in teaching reading and let students read alone. The teacher rarely gives students opportunity to read a text with guiding by the teacher. To solve those problems, the teacher can use some method that can improve students reading proficiency. The researcher proposes the teacher to use Bionic method.

Bionic method was a new reading method that facilitating reading process by guiding the eyes through text with artificial fixation points. As a result, the reader only focusing on the highlighted initial letters and lets the brain center completed the word. Bionic reading aims to encourage a more in -depth reading and understanding of written content. This method was design to help students understand the meaning of the context in the texts. This method very important to improve the students ability because it can activate knowledge and thinking about the text even before they starts reading. It allows the students to know information as they learning it. Bionic method is a reading method which consists of five steps such as survey, question, read, recite and review. This useful method aids reading comprehension and especially very helpful for difficult textbook materials. Each part of the process helpful by itself, this method equips students for more systematic and structured reading techniques so they can understand the texts in a better way, makes students active and co-operative. Bionic method is the effective way of learning as you read, activating this method is the key for readers to achieve better reading ability and help students become independent readers. This method can help the students process information actively which in turn leads to higher memory and mastery the materials.

RESEARCH METHOD

This research was a Classroom Action Research (CAR) which consist of two cycles. According to Tomal, action research is a systematic process of solving problems and making improvements. It indicated that action research is the problem solving process from an educational learning process. Classroom Action Research (CAR) means that the teacher can know what the problem in the class and find the effective solution to solve problems. This study focused to improve the students reading proficiency at 10th grade students of Senior High School. The subject of this research consist of 30 students, they are 12 boys and 18 girls which had a lower average score in reading chos as research subject. Based on the result of observation and interview, the result of English teaching learning in this class lower than others, especially in reading process.

Kemmis and McTaggart described that Classroom Action Research (CAR) consists of four stages in a cycle, they are planning, acting, observing and reflecting. The first cycle may be continued to the next cycle until the research got outcome. The cycle in this study illustrated like a spiral process. The cyclical classroom action research presented as figure 2.1 below



(Anne Burns : 2021)

The Classroom Action Research (CAR) design applied in this research was a collaborative CAR. In conducting the research, the researcher collaborate with the real English teacher. The researcher plays a role as English teacher who teaches reading through Bionic method to the students while the real English teacher's role as observer, who observes the action of the research in teaching learning process. Also, the real teacher acts as a collaborator when helps the researcher in designing lesson plan, carrying out the reflection and determining the follow up of the study. The researcher is not only as an observer but also takes actions by making lesson plan and giving assessment. Then, the researcher also collected and analysed data with the real teacher to know the result of the students reading proficiency completely.

Based on Kurt Lewin's action research design, the researcher wants to explain a scheme for this study as follows

- 1) First Cycle : there are four stages in cycle I
 - a. Planning , the researcher prepared lesson plan based on curriculum and English syllabus , observation sheet and instrument for reading test before and after Classroom Action Research (CAR)

- b. Acting, the researcher acts as teacher and the real teacher as the classroom observer. The researcher conducted three activities such as pre-teaching, while teaching and post teaching activities.
- c. Observing, the researcher identified the students achievement in reading class by giving test after CAR in first cycle and calculated students improvement scores from test before and after CAR in first cycle whether improving or not. The real teacher observed and analysed teaching learning process.
- d. Reflecting, the researcher analysed the observation result during teaching learning process, prepared lesson plan for the next cycle and for test after CAR in second cycle in order to know students score improvement.

2) Second Cycle

- a. Planning, as the first step in every activity, in this cycle, the researcher focused on revising the weakness in cycle I such as prepared lesson plan based on curriculum and English syllabus, observation sheets and reading test before and after CAR.
- b. Acting, as the implementation of planning, the researcher creates three activities such as Pre-teaching activities (greeting, checking the attendance list and choosing appropriate teaching material) ; While Process (the researcher applied lesson plan in classroom interaction , recite the procedure of bionic method to students, gave text to the students then they read it for 15 minutes and closed it. The researcher asked students about some information about text. The researcher helps students arranged information about text, the students create conclusion while the teacher and the researcher controlling their activities)
- c. Observing , the researcher observe classroom interaction by using observation sheets, students given the test after CAR cycle 2, the researcher analyse students score from test before CAR with test after CAR in first cycle to test after CAR at second cycle.
- d. Reflecting, the researcher analysed and revised the result of the action. The researcher manipulated a new method in action, students response with teaching media, students score in reading ability and analysed the result from test after CAR in first cycle to test after CAR at second cycle. The researcher and teacher made an agreement for individual assessment, if the score target was not achieved , the action continued to the next cycle but if the score target achieved, the action was stopped.

Bionic method is a new method which can improve students reading proficiency significantly, students interest and teacher's performance in teaching learning process. Bionic reading as an innovative method of reading which uses artificial fixation points to guide the eyes through the text. The goal of bionic reading method was to create reading faster, better and more focused significantly. Bionic reading makes reading easier by guiding our eyes through the highlighted text. This shorten the time we need to read and understand the context and increases reading speed. This method designed to help readers read the text faster and understand it better in less time. It involves highlighting the important parts of the text and guiding our eyes through the highlighted text to understand and retain it quickly.

There are many techniques used to collect data such as observation, test, field note and documentation. The researcher observe the students interaction in the classroom directly to get the real performance. Observation helps the researcher reflect data systematically. The data was taken from the students classroom participation in teaching learning process. The information collected from observation used to determined planning for the next cycle. Test is a method of measuring someone ability, knowledge and performance significantly. It is a series of question used to measure the students achievement. The researcher used pre- test and post-test form to know their ability before and after treatment. The improvement could be known if the score of post-test higher than pre-test and the score could achieved the passing grade. The researcher was taking field note related to the classroom situation, classroom interaction and classroom management comprehensively. Documentation includes reading worksheet, students record, lesson plans, course overview and classroom materials.

Data analysed by taking the average score of pre and post – test, the researcher compared the score between pre – test and post- test after giving treatment carefully. The result matched with the minimum standard of the semester, that is 70. The researcher would conduct the next cycle if there are some unsuccessful students in cycle I. the data analysis technique in this CAR used qualitative and quantitative analysis. The analysis of learning result was tabulated the result of the test and found the mean score of pre-test and post - test. The mean score calculated by compared sum of total number of students score with the total number of students. The average score between pre-test and post-test at each cycle compared then to know the percentage of increasing score by compared frequency of the correct answer with total number of students. This research reached success if 70 % students achieved minimum score 70. Furthermore, 70 % of students were active in teaching learning process. Students reading ability could be measured by using reading assessment from Grenall and Swan

Table 1. Reading Assessment

No.	Criteria	Score
1.	Students can identify the meaning of the ideas in the text	0 - 25
2.	Students can identify the communicative purpose of the text	0 - 15
3.	Students can identify main idea of the text	0 - 25
4.	Students can identify information contained in the text	0 - 35
		100

FINDING AND DISCUSSION

This research used classroom action research (CAR) which conducted in two cycles. Each cycle consists of three meetings and each meeting takes 90 minutes. Every cycle consists of four steps such as planning, action, observation and reflection. The researcher provide a lesson plan and reading guidelines for classroom activities. The researcher had investigated students reading proficiency by conducting pre-test. The result of pre-test was presented in the table below :

Table 2. The Data of Pre – test

No.	Name	Score	Criteria
1.	AWS	50	incomplete
2.	STR	50	incomplete
3.	XYZ	40	incomplete
4.	MGT	50	incomplete
5.	CBG	70	complete
6.	DHY	50	incomplete
7.	JKL	50	incomplete
8.	IOP	60	incomplete
9.	QRE	70	complete
10.	HDF	70	complete
11.	YTR	50	incomplete
12.	BVC	60	incomplete
13.	XUY	70	complete
14.	NMH	30	incomplete
15.	FDS	70	complete
16.	HJK	60	incomplete
17.	RQZ	50	incomplete
18.	HCX	75	complete
19.	VKT	70	complete
20.	BFU	73	complete
21.	AIO	76	complete
22.	TDS	50	incomplete
23.	LYA	40	incomplete
24.	HNB	40	complete
25.	OJK	76	complete
26.	WZU	50	incomplete
27.	BWJ	50	incomplete
28.	NBV	40	incomplete
29.	CYR	50	incomplete
30.	LKD	40	incomplete
	Amount	1680	
	Average	56	

Table 3. Classification of Students Ability

No.	Grade	Category	Total	Percentage
1.	> 70	complete	10	33 %
2.	< 70	incomplete	20	67 %
			30	100 %

From the data, we know that 20 students (67%) were not completed or not successful and 10 students (33%) were complete. The successful group were those who reached the minimum mastery criteria at least 70. The successful students smaller than unsuccessful students. The result of pre-test showed that the students average score 56, it means the result was unsatisfied. Therefore, the researcher used Bionic method to improve the students reading proficiency.

A. First Cycle

- a) Planning, the researcher and the teacher prepared many things related to classroom activities like lesson plan, teaching materials, instrument, observation sheet. The researcher and the teacher discuss problems which found at the beginning until the end of learning activities, create an evaluation to measure the students ability on the given learning materials.
- b) Acting, the first meeting followed by 25 students, the meeting begin early, praying, greeting and checking the students attendance list. All of the students participate actively in classroom interaction. The researcher explained the procedure of bionic method then begin to introduce learning material. The use of reading text. the researcher applied the lesson plan and recite the procedure of bionic method to students. The researcher gives text then the students read for 15 minutes and closed it. The teacher asked students information in the text and the students write all of information from the text clearly. The researcher asked to answer some questions, give the conclusion and score to the students.
- c) Observing, the researcher presented the learning material by the guide reading and summarizing procedure. In this learning activities, there are four indicator to know the students activities like the learning process previously. The real teacher observed learning activities like teacher performance and students response. The researcher observed the students score in reading by giving the test after CAR then identified students improvement scores from test before CAR.
- d) Reflecting, this is the last step in this process, the researcher prepared the lesson plan for the next cycle. From the result of cycle 1, we knew that the learning activities has not achieved minimum mastery criteria (MMC). at the end of the first cycle, the researcher analysed students pre-test and post - test achievement. The comparison between the pre-test score and post test illustrated in the table below

Table 4. Pre-Test and Post-Test Score Cycle I

No.	Students Name	Pre-Test	Post-Test	Progress/Achievement	Identification
1.	AWS	65	75	10	improved
2.	STR	70	70	0	constant
3.	XYZ	50	75	25	improved
4.	MGT	60	70	10	improved
5.	CBG	75	85	10	improved
6.	DHY	60	50	-10	declined
7.	JKL	75	75	0	constant

8.	IOP	20	50	30	improved
9.	QRE	75	80	5	improved
10.	HDF	75	85	10	improved
11.	YTR	50	70	20	improved
12.	BVC	50	30	-20	declined
13.	XUY	50	50	0	constant
14.	NMH	75	80	5	improved
15.	FDS	65	75	15	improved
16.	HJK	50	70	20	improved
17.	RQZ	60	75	15	improved
18.	HCX	75	80	5	improved
19.	VKT	60	50	-10	declined
20.	BFU	75	75	0	constant
21.	AIO	60	65	5	improved
22.	TDS	50	40	-10	declined
23.	LYA	75	80	5	improved
24.	HNB	40	75	35	improved
25.	OJK	50	60	10	improved
26.	WZV	50	60	10	improved
27.	BWJ	60	50	-10	declined
28.	NBV	50	60	10	improved
29.	CYR	60	70	10	improved
30.	LKD	60	60	0	constant
	TOTAL	1795	1990	355	
	AVERAGE	59	66		
	LOW SCORE	20	30		
	HIGH SCORE	75	85		

Table 5. The Comparison of Pre-Test & Post-Test Cycle I

Score Interval	Pre-Test	Post - Test	Identification
>70	8	11	complete
<70	22	19	incomplete
TOTAL	30	30	

Table 6. The Frequency Students Learning Activities in Cycle 1

No.	Classroom Activities	Frequency	Percentage
1.	Asking – Answering Questions	16	54
2.	Able to do exercises	20	64
3.	Paying attention in classroom interaction	15	50
4.	Participate Actively	18	58

	Total Students	30	
	The Average Percentage	57 %	

The table above figured that 22 students were not successful and 8 students were successful (pre-test) and 19 students were not successful and 11 students were successful (post-test). The successful students were reached the minimum mastery criteria 70. The unsuccessful students higher than successful. The criterion of students who were successful should reached the minimum mastery criteria. Based on the result of post-test and students activities in cycle 1, that caused of giving unwell learning material. Some students couldn't understand material completely. Another students were not satisfied because most of the students didn't pay attention to the explanation so they got difficulties to understand it fully. Some students failed in the test of cycle I. Based on that result, the researcher had to prepare cycle II which consisted of four stages such as planning, acting, observing and reflecting.

B. Second Cycle

- a) Planning, the process at cycle II focused on the problem at cycle I. there were some problems in cycle I so the researcher planned to give another treatment by using bionic method. The researcher prepared lesson plan, observation sheet and identified students problems in classroom activities and give an evaluation to measure the students reading ability.
- b) Acting, the researcher explained the generic structure and tenses in the text then distribute the students a descriptive text and ask to make a group consist of three students. The students ask to read text for 15 minutes then close the text the teacher asks students about all information of the text and the students write all of information from the text in whiteboard. The students back again to the text to search more information. The teacher assists students to arranged information about text systematically. Then students rewrite the simple sentences. The last activity is the students draw a conclusion as summarizing.
- c) Observing, the researcher presented material based on procedure of bionic method. In classroom interaction, there were four indicators used to know the students activities same like the process previously. The result of observation sheet in cycle II showed that the process was successful. The students activity in second cycle improved. The students activity reached high percentage were the students pay attention fully to the teacher explanation then the students can answer the questions 80 %. The classroom participation 85 % and the last measurement is the students can do the task given 75 %. Based on the result of cycle II the researcher concluded that the learning process in cycle II was successful because the classroom participation >70 %.
- d) Reflecting, the researcher calculated then analysed students process at post test II based on their learning activity.

Table 7. Pre-Test and Post - Test Cycle II

No.	Students Name	Pre-Test	Post - Test	Progress	Identification
1.	AWS	60	75	15	improved

2.	STR	75	90	15	improved
3.	XYZ	60	55	-5	declined
4.	MGT	75	80	5	improved
5.	CBG	70	75	5	improved
6.	DHY	50	75	25	improved
7.	JKL	70	80	10	improved
8.	IOP	70	75	5	improved
9.	QRE	60	50	-10	declined
10.	HDF	60	65	5	improved
11.	YTR	60	85	25	improved
12.	BVC	50	70	20	improved
13.	XUY	70	75	5	improved
14.	NMH	60	75	15	improved
15.	FDS	70	75	5	Improved
16.	HJK	50	70	20	improved
17.	RQZ	60	80	20	improved
18.	HCX	60	50	-10	declined
19.	VKT	50	80	30	improved
20.	BFU	70	85	15	improved
21.	AIO	60	75	15	improved
22.	TDS	70	80	10	improved
23.	LYA	50	70	20	improved
24.	HNB	50	85	25	improved
25.	OJK	60	85	25	improved
26.	WZU	75	85	10	improved
27.	BWJ	60	50	-10	declined
28.	NBV	50	75	25	improved
29.	CYR	60	85	25	improved
30.	LKD	70	85	15	improved
	Total Score	1855	2240	380	
	Average	63	75		
	Low Score	50	70		
	High Score	75	90		

Table 8. The Comparison of Pre - Test and Post-Test in Cycle II

Score Interval	Pre - Test	Post - Test	Identification
>70	11	25	complete
<70	19	5	incomplete
TOTAL	30	30	

Table 9. The Frequency Students Learning Activities in Cycle II

No.	Students Activities	Frequency	Percentage
1.	Paying attention to teacher explanation	26	91 %
2.	Asking – Answering questions	22	78 %
3.	The students active in classroom	22	78 %
4.	The students can do the tasks	20	75 %
	The Average Percentage		81 %

The students activities in second cycle was increased. The students activity reached high percentage where the students pay attention of the teacher explanation 91 %. The students can asking and answering the questions from teacher 78 % , the students active in the class 78 % and the students can do the tasks 75 %. Based on that result, the data indicated that the teaching learning process in cycle II was successful because the students activity reached percentage > 70 %.

Choosing appropriate method in reading classroom would help the students understanding it easier. The students were very happy and enthusiastic during teaching learning process. The researcher assumed that teaching reading by using bionic method can improve students reading ability.

CONCLUSION

The result of this Classroom Action Research (CAR) showed that the students reading score improved continuously affected by the use of Bionic Method in reading classroom. The conclusion was taken after analyzing the data finding which was gained from the investigation showed that there are significant improvement of the students score from first to second cycle. The average score at first cycle was 67 with the successful achievement 63% and the second cycle, average score 72 with the percentage of students successfulness 75 %. It means that the indicator of minimum mastery criteria has been achieved at least 70 % students were completed. This finding indicated that using Bionic method could improved students reading proficiency significantly at 10th students of senior high school.

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