Using WebQuest to Improve Students' Reading Comprehension

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Abstract: *This study is aimed to improve students' achievement in reading comprehension using WebQuest. This study was conducted by using classroom action research. The subject of this research was the ninth grade students of SMP N 5 Surakarta. It was carried out in two cycles including 6 meetings. Based on the research, it is proven that teaching reading in elementary students by using WebQuest simultaneously improves students' reading comprehension. However, it is worth to note that using webQuest is effective and efficient if the activities and materials involve the students. Therefore, it is suggested that teachers should be more creative to use various material resources and create an interesting form of WebQuest in teaching reading to make the students more interested and actively involved in teaching learning process. In addition, WebQuest can also improve the classroom climate including students' participation and motivation in class, which can be seen from the students' attitude in joining all activities during the research.*

1. Introduction

Reading is a process of understanding a written text as a piece of communication. Reading comprehensionis one of the important skills in broadening the reader's perspective, and giving them a chance to see the world and opportunities.

To develop reading, one of the most useful resources is internet, since it has a large amount of varied and easily accessible authentic materials. One of the main reasons for using authentic materials in the class is that the learner will encounter the real world and the real language.

In this research, the researcher intends to overcome the problems to improve students' reading comprehension using an innovative media of teaching. The researcher suggests "WebQuest" to solve the problems.

WebQuest was designed by Bernie Dodge and Tom March in 1995 as an effort to implement the computer-based learning environtment and integrate the World Wide Web into classrooms. He defined a WebQuest as an inquiry-oriented activity in which most of all of the information used by learners is drawn from the Web. WebQuests are designed to use learners' time well, to focus on using information rather than looking for it, and to support learners' thinking and levels of analysis, synthesis, and evaluation (March in Tuan, 2011, p. 11).

In order for students to find useful information on the Web, they need to read extensively, evaluate content of texts, select relevant information, and synthesize materials to construct meaning (Yousif in Crawford & Brown, 2002, p.1).WebQuests serve to guide students to resources and focus their work on the Web.

2. Literature Review

Reading Comprehension
Kennedy (1981, p. 192) states that reading comprehension is a thinking process by which pupil selects facts, information or ideas from printed materials, determines the meanings the author intended to transmit decides how they relate to previous knowledge he has acquired and judges their appropriateness and worth for meting his own needs and objectives. Andersonin Aebersold and Field(1997, p.16) states that successful readers can comprehend the text well if they are able to:
1. Recognize words quickly
2. Analyze unfamiliar words
3. Read for meaning, concentrate on constructing meaning
4. Guess about the meaning of the text
5. Distinguish main ideas of the text

Grellet (1995, p.5) lists some reading comprehension skills as follows:
1. Understanding explicitly stated information
2. Understanding information when not explicitly stated
3. Understanding the communicative value of sentences and utterance
4. Identifying the main point or important in a piece of discourse

Smith and Robbinson (1980, p. 54) state that reading with comprehension is the understanding, evaluating and utilizing of information and idea through an interaction between the reader and the author. Reading with comprehension is meant constructing meaning from what is being perceived in writing (Dallman, 1984. p 159).

Information Communication Technology (ICT)
Before reviewing about WebQuest, firstly we have to know that using WebQuest in the learning process is a kind of activity based on ICT.According to Buckingham (2003, p. 95), ICT is an umbrella term that includes any communication device or application, encompassing: radio, television, cellular phones, computer and network hardware and software, satellite systems and so on, as well as the various services and applications associated with them, such as videoconferencing and distance learning. ICTs are often spoken of in a particular context, such as ICTs in education, healthcare, or libraries.

Rosenberg (1991, p. 124) indicates that there are five movements happened in ICT:
a) From learning to showing
b) From classroom to anywhere and anytime
c) From paper to online

d) From physical facility to network

e) From time cycles to real time

Tinio (2002:8) state that ICT is a potentially powerful tool for extending educational opportunities, b e c a u s e :

1) Anytime,anywhere.

   One defining feature of ICT is their ability to transcend time and space. Online course materials, for example, may be accessed 24 hours a day, 7days a week.

2) Access to remote learning resources.

   Teachers and learners no longer have to rely solely on printed books and other materials in physical media housed in libraries (and available in limited quantities) for their educational needs. With the internet and the World Wide Web, a wealth of learning materials in almost every subject and in a variety of media can now be accessed from anywhere at any time of the day and by unlimited number of people.

In addition, Tinio(2002:11) divides the models of learning of ICT:

1) Active Learning

   ICT-enhanced learning mobilizes tools for examination, calculation and analysis of information, thus providing a platform for student inquiry, analysis and construction of new information.

2) Collaborative learning

   ICT-supported learning encourages interaction and cooperation among students, teachers, and experts regardless of where they are

3) Creative Learning

   ICT-supported learning promotes the manipulation of existing information and the creation of real world products rather than the regurgitation of received information

4) Integrative learning

   ICT-enhanced learning promotes a thematic, integrative approach to teaching and learning.

5) Evaluative learning

   ICT-enhanced learning is student-directed and diagnostic. Unlike static, text or printed-based educational technologies, ICT-enhanced learning recognizes that there are learners to explore and discover rather than merely listen and remember.

The Nature of WebQuest

WebQuest is a framework for guided inquiry that uses web resources as the primary source of information. Bernie Dodge, an American professor of educational technology at San Diego State University has focused on the design, implementation and evaluation of computer-based learning environments and created a learning model which has been widely used as an effective Internet-based educational tool in schools, colleges and universities for over a decade and is now one of the most popular and most effective tool in schools, colleges and universities for over a decade and is now one of the most popular and most effective Internet-based project models/ approaches.

Dodge in Tuan (2001, p. 666) defines a WebQuest as an inquiry- oriented activity in which most of all of the information used by learners is drawn from the Web. Webquests are designed to use learners' time well, to focus on using information rather than looking for it, and to support learners' thinking and levels of analysis, synthesis, and evaluation.

While according to Kelly(2000, p.1), is a teacher-created less on plan in the form of a simple World Wide Web page with active, pre selected Internet links and a specific purpose for students. It is designed to provide students with an independent or small group activity that incorporates research, problem-solving, and application of basic skills.

The Structure of WebQuest

WebQuests can be of short (one to three class periods) or long (up to one month) duration. WebQuests serve to guide students to resources and focus their work on the Web. For teachers who seek to design a WebQuest, Dodge in Tuan (2001: 667) provides the following as critical components. A WebQuest should contain:

1) An introduction that sets the stage and provides some background information

2) A task that is doable and interesting

3) A set of information sources needed to complete the task.

4) A description of the process the learners should go through in accomplishing the task. The process should be broken out into clearly described steps.

5) Some guidance on how to organize the information acquired.

6) A conclusion that brings closure to the quest, reminds the learners about what they've learned, and perhaps encourages them to extend the experience into other domains

The Strength and Weaknesses Using WebQuest

Samra (2009, p. 4) in his page states that teaching through WebQuests has many strengths.

1) WebQuests have the ability to increase student motivation levels

2) WebQuests allow students to become active learners.

3) Students practice auditory, visual, reading, thinking and problem solving skills while they are completing a WebQuest

4) WebQuests narrow down the vast array of web pages available on any given topic.

5) Students spend more time learning about a topic rather than navigating through web sites in order to find a diamond in the rough.

Meanwhile, the weaknesses of teaching using webquest as quoted from Joiner (2009, p. 7) are:

1) Lack of interest of the student if the scenario is not interesting or challenging or if it is too challenging

2) The task has prescribed Web sites and resources that are to be used for this task and cannot venture to other sites that they find more appealing.

3) Lack of access to the internet

4) Lack of access to the computer programs and/or computers

In addition, Seikatzy, et. Al (2016, p. 3542) states tha the weakness of a webquest are less considered than its strengths. It is criticized for not being able to keep learners motivation and prevent learners from being distracted by irrelevant internet web sites. In addition, like any kind of

technology it could be restricted by inadequate internet connection and lack of resources.

3. Research Method

This research conducted in action research where the researcher pays more attention to the teaching and learning process. Classroom action research is the research were the teacher also the researcher, where teacher tries to make a better teaching learning process. In short, by doing a classroom action research, teacher reflect on their own practice, know the weaknesses and decide what action should be taken in order to improve the situation and practice. The research was conducted in SMPN5 Surakarta.

1) The Setting of Research
   The research was conducted in SMP N 5 Surakarta. This school has 288 students which are divided into 7 classes of the ninth grade students, 6 classes of the eight students, and 6 classes of the seventh grade students.
2) The Subject of the research
   The subject of this research is the ninth grade students of SMP Negeri 5 Surakarta. It consists of 35 students.
3) The Technique of Collecting the Data
   In this classroom action research, the data consisted of quantitative and qualitative data. Quantitative data were taken from writing test, including the students' score on pre-test and post- test. Meanwhile, qualitative data were taken from the result of interviews and observation. It was done during the process of teaching and learning. The researcher documented all the activity in classroom using photographs.
4) The Technique of Analyzing the Data
   In analyzing the data that had been obtained before, the writer used qualitative and quantitative analysis. Students' writing achievement was measured by using quantitative analysis. The researcher compared the mean scores of the pre-test and post-test to find out whether or not there was an improvement of the students' reading comprehension before and after the WebQuest were applied. Theanalysisofqualitativedatawasdoneusingconstantcomparativemethod.

4. Findings and Discussion

Findings
After conducting a research improving students' reading comprehension using WebQuest in SMP N 5 Surakarta, the researcher presented the findings of this action research. The data are aken from the achievement tests, observation checklist and field note.

This research was conducted in two cycles. During applying the strategy, the researcher and teacher were cooperated to record what actually happened in classroom by using field notes.

The teacher's view of the process was very important to avoid the subjectivity of the researcher. After giving the students' worksheet, the researcher computed thestudents' score and classified the mean score into the qualification. Afterward,both the researcher and teacher reflected on the teaching-learning process whetherit had been in line with the planning. All those steps were done to obtain theresearch

findings.The tools of data collecting consist of multiple-choice questions. The datafrom the student worksheet, each correct answer got 1 point. After that, the datafrom students' worksheet obtained by calculating the mean score of all thestudents.

To compute the class performance, the researcher used the formula of mean score. All individual scores summed and divided by the number of students in the class.

$$M = \frac{\sum X}{N}$$

Note:
M   = mean score
$\sum X$ = sum of individual score
S   = number of students

The research findings were on the result of the field notes. The description is as follows:

1) Prior to the research
The instrument of the test had been arranged and prepared before. In the test, the students were asked to answer 50 multiple choice questions. The results of the pre test scored are as follows:

Table 1: Pre-test average score

No.	Explanations	Scores
1	The highest score	7,6
2	The lowest score	5
3	The average score	6.03

There were five indicators that were analyzed: Finding main idea, finding supporting idea, finding detail information, finding meaning of words, and identifying referents. The result of the analysis could be seen on Table 2 below:

Table 2. Pre-testscore ofreadingindicators

No	Indicators	Average scores
1	Finding main idea	6.29
2	Finding supporting idea	5.19
3	Finding detail information	6.53
4	Identifying referents	5.64
5	Finding meaning of words	6.24
	Average score	6.03

2) Cycle 1
a) Planning Stage
   The researcher prepared the lesson plan, observation checklist table, and from of field notes. The lesson plan is a way to make an effort so that the students got involved in the teaching-learning process
b) Acting Stage
   The teacher greeted the students and prayed together. Next, the teacher checked the students' attendance list in the class. Then, the teacher motivated students to motivate them in teaching learning process. All activities followed the rules as written in lesson plan.
c) Observing the action
   It can be used as one of the indicators to know the students' progress. By observing the teaching and learning process in the firstcycle, the writer knew how far the effectiveness of using WebQuest in teaching reading. In the first meeting, the students were not discipline

because they did not enter the class on time. The teaching and learning of reading using WebQuest in cycle 1 run smoothly. Students still confused, but they were indicated that they are interested with it. Students liked to watch the movie trailler, but they were still not enthusiastic to read the text or answer aloud. It could be seen when teacher asked one of students to came to the front of class. There were some improvements on students' reading comprehension. The improvements were in some aspects of reading comprehension. They were the skills in finding the main idea, finding the supporting idea, recognizing stated details, finding the meaning of words and referent. The average score of post-test cycle 1 is higher than pre-test. It can be seen from the table below:

Table 3: The improvement of the average score in cycle1

No.	Explanations	Pre-Test	Post-Test Cycle 1
1	The highest score	7.6	8.2
2	The lowest score	5	5.8
3	The average score	6.03	6.76

The improvement of reading competence can also see from each indicator. The average score of each indicator in post test cycle 1 is higher than pre-test. It can be seen from the Table4.

Table 4: Improvement score of each reading indicators

No	Indicators	Pre-Test	Post Test Cycle 1
1	Defining main idea	6.29	6.33
2	Defining supporting idea	5.16	7.27
3	Identifying detail information	6.54	6.47
4	Identifying referents	5.71	7.15
5	Finding meaning of words	6.28	6.64
	Average score	6.03	6.76

3) Cycle 2
a) Planning stage
   Sharing idea with collaborator, designing treatment, interviewing the students, and giving post-test were the activities done by the writer.
b) Acting Stage
   The teacher greeted the students and prayed together. Next, the teacher checked the students' attendance list in the class. Then, the teacher motivated students to motivate them in teaching learning process. All activities followed the rules as written in lesson plan.
c) Observing the action
   The teaching and learning of reading using WebQuest in cycle 2 run effectively. Students were not confused in finishing the task of WebQuest anymore, and they were indicated that they were enthusiastic to work with it. Students liked to watch the video, WebQuest slide, and the topic. The group activities in cycle 2, students worked with their group and everybody in group was actively engaged. Students were enthusiastic to read the text or answer aloud. There were some improvements on students 'reading comprehension in some aspects of reading comprehension. They were the skills in finding the main idea, finding details information, and finding the meaning of words. Basically, the improvement of these aspects could be seen clearly from the post-test cycle 2 score. The score of the post test cycle 2 increased from the score of post-test cycle 1. The average score of post

test cycle 2 is higher than post-test cycle 1. It could be seen from the table below:

Table 5: The improvement of the average score in cycle 2

No.	Explanations	Post-Test Cycle 1	Post-Test Cycle 2
1	The highest score	8.2	8.8
2	The lowest score	5.8	7.4
3	The average score	6.76	7.68

The improvement of reading competence can also see from each indicator. The average score of each indicator in post test cycle 2 is higher than pre-test. It can be seen from the table below:

Table 6: Improvement score of each reading indicators

No	Indicators	Post-test Cycle 1	Post-test Cycle 2
1	Defining main idea	6.33	7.57
2	Defining supporting idea	7.27	7.99
3	Identifying detail information	6.47	7.63
4	Identifying referents	7.15	7.57
5	Finding meaning of words	6.64	7.64
	Average score	6.76	7.68

5. Discussion

The classroom action research was conducted in two cycles. Each cycleconsisted of planning stage, acting stage, observing stage, and reflecting stage.The acting stage was conducted in one meeting (2 x 35 minutes) that wasperformed during the teaching-learning process. The researcher needed acollaborator to observe what was happening in the classroom and to take somenotes. The presence of collaborator was to minimize the subjectivity of theresearcher while interpreting the data. The data was collected in the form ofstudents' assignment, and field notes.

In the first cycle the problems that happened in this cycle were the situation in the class. Students still confused, but they were indicated that they are interested with it. Students liked to watch the movie trailler, but they were still not enthusiastic to read the text or answer aloud. It could be seen when teacher asked one of students to came to the front of class.

There were some improvements on students' reading comprehension. The improvements were in some aspects of reading comprehension. They were the skills in finding the main idea, finding the supporting idea, recognizing stated details, finding the meaning of words and referent. The result for the students' mean score in the first was 6.76. It was categorized as Average.

The second cycle, based on the reflection in the previous cycle, the researcher set some activities that were going to be done for the second cycle, thise are: sharing idea with collaborator, designing treatment, interviewing the students, and giving post-test. The researcher focused on finding main idea, detail information, and meaning of words; implemented a different way of grouping the students to reduce the noise and chaos during the process;conducted WebQuest in small group to minimize the noise and help her to control the language being used by students during the lesson, conduct

more interesting theme of WebQuest, and gave interesting feedback to increase students' motivation and confidence in showing their skills in front of class.

Students were not confused in finishing the task of WebQuest anymore, and they were indicated that they were enthusiastic to work with it. Students liked to watch the video, WebQuest slide, and the topic. The group activities in cycle 2, students worked with their group and everybody in group was actively engaged.The result for the students' mean score in the first was 7.68. It was higher than the post-test cycle 1 and higher than KKM. There were also changes in students' behavior toward teaching and learning procss. It could be seen that the students were more discipline in time.

6. Conclusion

The conclusions of this research are:
1) The students' reading comprehension had improved by using WebQuest.
2) The studentsreading comprehension had improved from the first cycle to the second cycle when WebQuest applied as the media in teaching and learning process. The mean score in the first cycle was 6.76, the second cycle was 7.68.
3) Teaching reading using WebQuest could positively involve the students in the process of teaching and learning activity. WebQuest could improve students' attention and participation in reading class activity.
4) The WebQuest is an appropriate media is an appropriate using for young learners.

7. Acknowledgment

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