Improving Students' Reading Ability in Guessing Word Meaning from Context through Guided Discovery Learning: A Classroom Action Research on the Eleventh Grade Students of SMAN 1 Sumpiuh in the Academic Year 2019/2020

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Abstract

This action research aimed to investigate how Guided Discovery Learning can be implemented to improve the students' ability in guessing word meanings from context as well as the strengths and weaknesses of the method when used in class. The research participants were the students of SMA Negeri 1 Sumpiuh, XI Science 4. The researcher implemented two cycles in this research and four steps for each cycle; planning, action, observation, and reflection. The data were obtained from several techniques, including tests, observation, questionnaires, and interviews. To analyse the quantitative data, the researcher applied descriptive statistics, comprising the following dimensions: highest and lowest scores and means. The researcher analysed the improvement of the students' ability through interviews and questionnaires to analyse the qualitative data. The research findings show that the student problems related to difficult words could be solved by predicting their meanings from context. This skill could help the students understand and comprehend the text easily without depending on the dictionary or asking the meanings of the unknown words to other people. Therefore, a certain method was needed to develop the students' skills in guessing word meanings from context, one of which is Guided Discovery Learning (GDL). In conclusion, using GDL allowed the students to discover signal words to determine the meaning of the unknown words. However, GDL has its strengths and weaknesses, although it is recommended for teachers, particularly when teaching reading and vocabulary.

Keywords:
Context, Guided Discovery Learning, Word meanings

Introduction

Reading is a basic need when someone wants to learn anything. Poor reading competence means poor knowledge. In this global era, science and technology information has a significant role as it can bring people to follow the development of science and technology across the world. People can get a lot of information by reading books, listening to the radio, watching television, attending seminars or other activities. However, they find a lot of information mainly in the form of printed material, such as articles, journals, newspapers, textbooks, etc. Brown (2001:98) stated that modern society would read all the written texts to fulfil their needs.

Reading is no doubt a means of gaining knowledge. As Shah (2010:2) said, in the process of reading, readers receive information through the eyes, discriminating letter shape, associating the letter with language, associating the text with meaning. It is, therefore, quite clear that reading is a cognitive process that demands a serious, careful, and well-planned study of skill. It means that it is very important to use strategies to decode written form to arrive at meaning. Reading text also provide good models of English writing and provide an opportunity to study language: vocabulary, grammar, punctuation, and the way we construct sentences, paragraph, and text. A good reading text can introduce interesting topics and fascinating lessons. Alshumaimeri (2011: 2) said that reading is a crucial skill in learning in communication. Reading skill enables a reader to understand written form

as meaningful language, read anything with independence, comprehension, and fluency, and mentally interact with the message.

Research has shown that reading is only incidentally visual. The reader contributes more information than by the print on the page. That is, readers understand what they read because they can take the stimulus beyond its graphic representation and assign its membership to an appropriate group of concepts already stored in their memories. Skill in reading depends on the efficient interaction between linguistic knowledge and knowledge of the world, according to Clarke and Silberstein in Brown (2004: 284). In other words, it is shown that the role of the reader is significant. The reader's knowledge of linguistics and the world is critical to help grasp the message of the passage.

On the other hand, Goodman in Brown (1994: 284) consider that reading is a guessing game needing literary of letters, morphemes, syllables, words, grammatical cues, discourse markers, and use of their linguistics data processing mechanism to impose some order on these signals, so the students will find it easy to decode meaning from the printed page. Goodman adds that from described events, ideas, etc., it is hoped that the students can infer links and connections between events, deduce cause and effects, and detect such relation as main idea, new information, generalisation, and exemplification. Goodman polarises his idea on the students' ability to distinguish between literal and implied meanings. Meanwhile, he insists that it is essential to have the students have the ability to detect culturally specific references and interpret them in a context of appropriate cultural schemata. From this explanation, it is, therefore, important that the students can guess word meaning from context. To become better readers, as proposed by Carrel (1989); Carsonetal (1990), students need to become aware of how they are reading and what they could do to improve their comprehension. Recent research indicates that becoming more aware of what readers do when they read and conscious of their reading processes are powerful tools for improving reading efficiency. The students need a certain method that gives them a chance to comprehend the text easily.

From the above explanation, reading comprehension is essential for everyone, especially the students, as stated in syllabi on formal education, showing that reading is one of the skills that students have to master (BNSP, 2007:ix). Unfortunately, students' reading comprehension in SMA Negeri Sumpiuh, especially the eleventh grade, is still unsatisfactory. It can be seen from the result of their daily tests. It indicates that the students find difficulties in (1) identifying the topic of the text (67), (2) identifying the main idea of the paragraph(50), (3) determining the specific information(66), (4) identifying the meaning of unfamiliar words (22), (5) determining references(56). The difficulties can be seen from the score of their daily test. The highest mean score of the research pre-test is identifying the topic of the text(67), the lowest mean score is on identifying the meaning of unfamiliar words (22), and the mean score of all the skills above is 54.7.

Based on the students' answers to the test, it can be seen that the most problematic element which the students face is in determining word meaning. It is the lowest rank among the other skills. Besides getting the data from the daily test result, the researcher also found some indicators of students' difficulties in guessing meaning from context taken from a questionnaire. Data from the questionnaire showed 82 % of the students seemed to have problems determining word meaning. Regarding the appropriate strategies to overcome the difficulties, the researcher tried to give the students the second test about guessing word meaning from context. The highest score of the second pre-research test on guessing word meaning is 85, the lowest is 20, and the mean score is 56.41. It is still under the limit of the passing grade too.

The mean score of 56.41from the test of Science 4, the eleventh-grade students SMA N Sumpiuh was too low from passing grade. It may be caused by some factors, internal and external. Based on the interview, questionnaire, and observation, the internal factors were (1) the students tend to lose focus in reading activity because they do not understand their reading purpose (2) the limitation of students' vocabulary makes them are too dependent on the dictionary, asking their friends or teacher. Although checking the meaning of the words in a dictionary is a very effective way of finding the meaning of the words quickly, the problem is how to determine the appropriate meaning of the words presented in the dictionary, which is suitable to the content in the text. On the other hand, looking at a dictionary for every difficult word can greatly disrupt the continuity of the reading. Therefore, in some cases looking up words in the dictionary all the time is not advisable.

The student should be trained not to look at the meaning of the words in the dictionary; they should be able to guess the meaning from context. Moreover, in some cases, the students are

forbidden from using dictionaries, especially in reading tests and examinations. The students faced difficulties comprehending the content of the text because they tended to read the text one word by word. The external factors include (1) the teacher is not aware of the various media and methods in the teaching and learning process, so the students want to improve teaching reading. There is a teacher-centred activity the students do not have a chance to explore themselves, to find out the content of the reading text freely. (2) the materials are not interesting, outdated, and monotonous.

Encountering the problems above, the researcher proposed the ways related to them. To make an effective learning process, the teacher should prepare the teaching and learning process instruments and use an appropriate method and interesting materials to improve the students' ability to guess word meaning from context. The researcher believes that guessing word meaning from context is a very essential skill. By mastering this skill, the students possibly comprehend the text easily. They were expected to understand the text thoroughly without reading one word by word. They were equipped with some techniques and strategies for comprehending English texts. Thus, in this way, they are supposed to be able to read actively and effectively. They learn by themselves, developing their learning style based on their preference.

The students were trained how to gain scientific information in English texts in the field of education and other related fields. They might be able to answer questions in a reading test or examination properly. They would not be too dependent on using a dictionary whenever they find difficult or unfamiliar words to avoid wasting time. This skill was supposed to be able to help the students read faster and easier. To improve this skill, the researcher proposed Guided Discovery Learning to enhance the students' reading ability on guessing word meaning from context.

Literature Review

According to Nuttall (1996: 4), reading is the process of getting the messages from the text, and the process as shown in the following scheme:

Scheme 1
The Scheme of Nuttal's Reading Process
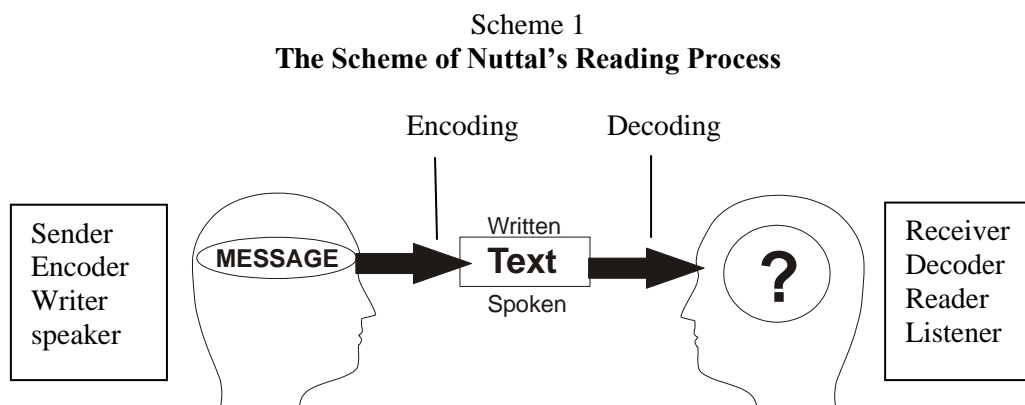
Aebersold and field (1997: 15) say that reading happens when people look at a text and assign meaning to the written symbols in that text. In reading activities, the readers look at the words on the paper and seek their meaning. Brown (2007: 369) states that learners should utilise all their skills and put forth as much effort as possible to target their hypotheses. But the point here is that reading is, after all, a guessing game of sorts, and the sooner learners understand this game, the better off they are. The key to successful guessing is to make it reasonably accurate. To become accurate guessers, the learners should be encouraged to use effective compensation strategies in which they fill gaps in their competence by intelligent attempts to use whatever clues are available to them. Language-based clues include word analysis, word association, and textual structure. Nonlinguistic clues come from context, situation, and other schemata.

Discovery Learning comes from Bruner's theory (1966), consisting of (1) Curiosity and uncertainty. (2) Structure of Knowledge. (3) Sequencing (4) Motivation. Many researchers have been developing the theory in their studies. Udo, Mfon Effiong. (2010). Abdisa, Getinet, Chambers. (

2012). A. Kyriazis, S. Psycharis, and K.Korres.(2009), in their research, used Guided Discovery Learning. They recommend that the teachers implement this method with sufficient guidance to help students create, integrate, and generalise knowledge through constructivist problem solving by providing them with materials available in each subject.

Method

The research was carried out at SMA Negeri 1 Sumpiuh, Banyumas, Central Java. It is located at Jalan Raya Sumpiuh Barat 95 Banyumas. The research participants were the science-4 eleventh-grade students, SMA Negeri Sumpiuh, in the 2019/2020 academic year. There were 28 students in this classroom, 22 girls and 6 boys.

The research was conducted as action research. Based on Mill's point of view (2000:6), action research is any systematic inquiry conducted by the teachers, researchers, school counsellors, or other stakeholders in the teaching-learning environment to gain information about the ways how their particular school operate, how they teach, and how well their students earn. Meanwhile, Carr and Kemmis (1986, P.220) state that " action research is self-reflective inquiry undertaken by participants to improve the rationality and justice of their own social or educational practices as well as their understanding of these practices and the situation in which these practices are carried out". They describe action research as a cyclical or spiralling process, and the key steps are Plan, Act, Observe, and Reflect. Figure 1 below identifies the kind of processes teachers might engage in at each point in the cycle.

Figure 1

Action Research Cycle
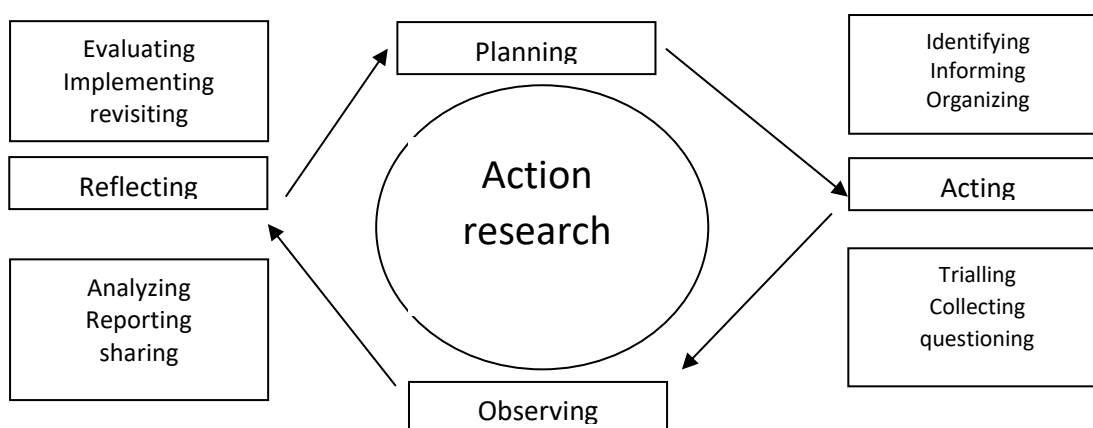
Note. NSW Department of Education and Training,2010, p.3 in Burns (2014:91)

As Burns (2014: 91-92) states, the kinds of processes the teachers might engage in at each point in the cycle are as follows: 1) In the planning stage, it focuses on identifying the classroom issues or dilemmas they want to be focused on. Through observation, reading journal articles will give new information about the current situation for organising and trying out new teaching ideas, materials, or approaches that teachers hope will change or improve the issue they are interested in. 2) Acting stage. In this stage, the teachers begin acting on that plan in the classroom to see what occurs. It is a process of trialling the ideas and collecting data or evidence about what is happening as a result of the experimentations. (3) Observing stage.

Having acted on the plans, the activities move into observing the effects of the action by analysing, reporting, and sharing the finding. In analysing the data, the researcher used a variety of techniques to collect data (e.g., observing students in class, recording the lesson, distributing a questionnaire, interviewing students, parents, or colleagues). Reporting and sharing involve

discussing the research and the findings with other colleagues or with a team of teachers, researchers, and colleagues. (4) Reflecting. In this final stage, the action researcher evaluates what the research has revealed and what new ideas or directions for practice have emerged as a result. Based on these activities, the researcher decided to revisit or re-evaluate the original assumptions and take the research through another cycle of discovery to increase understanding. Action research is a continuing process of action and reflection that usually takes a researcher in new directions.

The researcher implements some techniques to get data accurately as follows: (1) Observation, (2) interview, (3) Questionnaire, and test. As Arikunto (2010: 264) proposes, there are several techniques in collecting the data: test, questionnaire, observation, interview, multilevel scale, and document.

Findings and Discussion

The research findings are presented in the following section:

1. **The Improvement of the Students' Reading Ability on Guessing Word Meaning from Context.**

The percentage is used to measure the students' reading comprehension on guessing word meaning from context. To find out the percentage, the researcher used the percentage correction formula as follows (Arikunto, 2006: 221):

$$S = \frac{R}{N} \times SM$$

Where:

S   = The student's mastery in %

R   = The student's correct answer

N   = The maximum number of the whole answer

SM = Standard mark (100)

The researcher used the result of the percentage formula to look for the students' comprehending of guessing word meaning from context. In determining the level in this ability, the researcher used the categories as follows :

Table 1

The System of Score category

Percentage	Interpretation
81 – 100	Very good
61 – 80	Good
41 – 60	Fair
21 – 40	Poor
0 – 20	Very poor

The students ' reading comprehension was found from the percentage of the correct answer. The findings of the study showed that the use of the GDL Method could improve the students' reading ability on guessing word meaning from context. The improvement can be

seen by comparing the pre-test scores, the scores of the post-test of Cycle 1, and the post-test scores of Cycle 2.

The improvement of the students' ability on guessing word meaning from context can be seen in the table below:

Table 2

Table of the scores of pre-test, post-test of cycle 1, and post-test of cycle 2.

No.	Categorised	Pre-test	Post-test of Cycle 1	Post-test of Cycle 2
1	Highest score	80	85	95
2	Lowest score	20	40	55
3	Average score	56.41	67,9	73,9

Based on the findings, it can be categorised well that the use of guided discovery learning (GDL) can improve the students' reading ability, especially in guessing the meaning of the unknown words from context. The improvement can be concluded from their scores on the tests. As Brown (2007: 455) describes, " A test is a method of measuring a person's ability or knowledge in a given domain, with the emphasis on the concepts of method and measuring. To recognise the achievement, it is essential to compare the result of pre-test and post-tests based on each mean score. If the post-test score is better than the pretest, it means that the method works properly". From the result above, it can be proved that GDL can improve the students' ability on guessing word meaning from context. It can be seen from the average score of each indicator.

Table 3

Table of each indicator scores

No.	Indicators	Pre-test	Post-test 1	Post-test 2
1	Finding the clues/ signal words	54,2	70,8	74,1
2	Determining the word meaning from context	59.2	65,1	73,8

2. The Improvement of Teaching and Learning Process

The finding indicates that there were some changes before and after The GDL method was implemented in teaching reading. The teaching and learning processes using Guided Discovery Learning were more alive. The class atmosphere changed from passive to active. The students' motivation increased in the group; they would learn from others directly or indirectly. The researcher analysed their opinions and suggestions related to the teaching and learning process. Some students gave good responses to the new technique, such as:

> *"saya merasa senang dan lebih dapat memahami bacaan dengan metode dan tehnik memprediksi makna kata yang baru saja kita diskusikan", "lebih menyenangkan, menarik, dan mudah dipahami","bisa searching di internet dan tidak ngebosenin."*

They could share their knowledge through discussion activities. GDL method gave them the chance to be creative because there were student-oriented activities, not teacher-oriented ones. They did not feel sleepy and bored again. As a result, the researcher concluded that according to the students' view, this technique made them comfortable and enjoyable to join the teaching and learning process.

Some researchers have conducted inquiries regarding the use of Discovery Learning to improve students' abilities. Some of them are; 1) Abdelrahman Kamel Abdelrahman Mahmoud (2014) carried research entitled " The Effect of Using Discovery Learning Strategy in Teaching Grammatical Rules to first-year General Secondary Student on Developing their achievement and Metacognitive Skills" It finds recommendations: a) find a questionnaire foot bout of metacognitive skills secondary students using a modern discovery learning strategy, b) discovery learning strategy succeeded in teaching grammatical rules in the development of skill beyond the knowledge of students in the first grade secondary school year, Which is reflected in the level of the students in the test scores, c) discovery learning strategy helped to present activities where students learn for themselves and apply what know it in a new situation; which in turn led to achieving effective learning, 2)Udo, Mfon Effiong (2010 vol 4) title "Effect of Guided Discovery, Student-Centered Demonstration and the expository Instructional Strategies on Students' Performance in Chemistry". This study investigated the relative effectiveness of guided discovery, Student-centered demonstration, and expository methods of instruction on students' performance in chemistry. After classroom investigation, the result indicated that guided discovery was the most effective, followed by a student-centred demonstration, 3) Richard. Mayer (2004) Conducted research entitled "Should There Be a Three- strikes Rule Against Pure Discovery Learning?" He stated that In each case, the Guided discovery was more effective than pure discovery in helping students learn and transfer.

Referring to the other researcher's findings above, it made the stronger belief that GDL does cause the students to learn effectively and creatively.

Conclusion

In this research, the researcher conducted classroom action research related to the attempt to improve students' reading ability on guessing word meaning from context using guided discovery learning and to know the strengths and the weaknesses of guided discovery learning when it is implemented in teaching and learning reading text at the eleventh-grade students of SMA N Sumpiuh. After the researcher did the action, the researcher concluded that there was an improvement in the students' reading ability. Therefore, the previous hypothesis stated that guided discovery learning could improve students' reading ability, especially guessing word meaning from context. It is proven by the increase of students' average scores from pre-test to post-test in cycle 1 and cycle 2. The average score of all indicators reached above the minimum standard score and even higher.

In improving students' reading ability, the researcher faced some eases and obstacles. This ease and obstacles were formulated into the weaknesses and strengths. In this research, the strengths of the guided discovery learning were: first, guided discovery learning stimulated students to be autonomous and active readers because of having their strategy to comprehend the texts even without many teachers' guidance. Second, the students could predict the meaning of the unknown words without looking at the dictionaries or asking teachers. This ability is very important for every student not only in intensive reading but also in an extensive reading activity. Third, guided discovery learning is interesting and effective to improve students' reading ability because this method gives the students the chance to discover the techniques for guessing word meaning from context. Then they used this ability to comprehend the text easily.

The class atmosphere changed from passive to active. Their confidence was improved. It can be proved that most of the students began to have more courage to share, ask and respond to their friends or their teacher in their group. By using guided discovery learning, most students could enjoy reading text and participate in all activities. Generally, the classroom situation was more alive and exciting. Besides their strengths, there were some weaknesses of this method. Improving the ability to guess word meaning from context by implementing Guided discovery learning is less effective for passive learners, and it is needed a lot of time to prepare the lesson; there were still some students who could not get a very good mark in reading comprehension when they discussed the material, their speaking was still dominant in their mother tongue.

Implication

The research findings of this action research show that guided discovery learning can improve students' reading ability. Teaching reading using Guided Discovery Learning made the students easier to comprehend the ability to guess the word meaning from context. Having improved this ability caused them not difficult to understand the content of the text. Furthermore, the class situation was also better. The students became more active in learning reading.

Guided Discovery learning has proved to be an effective way of teaching and learning, and the ability to implement it in teaching reading is strongly suggested. It implies three main stages in teaching reading: the opening, the main activity, and the closing. In the main activity, there are six steps of guided discovery learning: 1)stimulation, 2)problem statement, 3)data collection, 4)data processing, 5) verification, 6) generalisation. In this research, the implementation of Guided discovery learning was combined with the use of a youtube video about the strategies of guessing word meaning from the context in the stimulation step. The appropriate media could encourage and motivate the students to actively participate in the lesson.

Suggestion

Based on the researcher's experiences while doing this research, the researcher would like to give some suggestions for the betterment of students' reading comprehension as follows:

1. For English teachers

   To improve the students' reading ability in guessing word meaning from context, the English teachers are suggested to implement guided discovery learning and apply the variations of media, especially youtube videos, to stimulate the student's curiosity.

2. For the students

   To improve their reading ability, the students are suggested to: pay attention and obey the entire teacher's instruction when they are being taught, keep reading many texts by using the techniques that they have learned with their teacher, especially context clues so when they find new words, they can overcome this problem easily without using a dictionary, keep improving their vocabulary by more practising in guessing word meaning from context, continuously develop their reading`s abilities without too dependent on their teacher's guidance.

3. For the school or institution

   For the effectiveness of the teaching and learning process, the school or institution is suggested to make the policy to the English teacher to conduct the Guided Discovery Learning, facilitate the school or institution with several books, teaching media, hot spot area which help the process of implementing Guided Discovery Learning.

4. For other researchers

   Finally, the researcher suggests that other researchers conduct classroom action research related to improving students' reading comprehension by using different techniques and media. However, the researcher hopes that this research can be used as a reference for the other researchers to conduct better research from different perspectives.

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