Improving Students' Critical Thinking through Guided Discovery Learning Method in Argumentative Texts Reading

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ABSTRACT

To effectively satisfy the 21st century learning capabilities, students' critical thinking abilities must be improved, especially in higher education. When learning to read, this can be performed. In this instance, the students should employ their critical reading strategies. students can employ critical reading practices to develop their critical thinking abilities. In this study, an argumentative text was chosen since students in higher education should be able to write scientific papers like theses and journal articles. This study aims to apply the Guided Discovery Learning method in critical reading classes using argumentative texts. This research was conducted on third semester students of the English Education study program, Surabaya State University. Data collection was obtained through observation, tests, and questionnaires. The results of the study show that the reading of argumentation texts becomes more in-depth and critical after the Guided Discovery Learning method is applied. This increase is partly due to the existence of elements of experience and concrete situations that make it easier for students to understand problems and make decisions in a comprehensive manner.

1. Introduction

Reading is an essential component of our lives, since it can provide us with all the information we require. In addition, reading is an important part of critical thinking because it involves the ability to understand, analyze, synthesize, and evaluate reading results. Burns et.al. (1996) states that the reading process is basically a thinking activity. Hudson (2007) adds that reading is a complex activity that requires a large number of separate actions, including the use of understanding, imagination, observation, and memory. Reading involves understanding, interpreting, and assessing information and responding to various readings. Thinking is involved in a variety of reading tasks (Luke, 2012). Consequently, effective reading instruction will provide students the ability to think critically. In the modern era, where a wide variety of information can be obtained easily, the skill of critical thinking is becoming increasingly important. Information and communication technology is advancing, making it easier and faster to apply to the diversity of texts and subsistence materials. Due to this, before using the information, the reader must be able to gather, verify, and evaluate it as well as analyze and summarize it. In this context, it is crucial to read and think critically so that we can protect readers from using outdated and misleading information.

Reading activity is an extremely important part of learning as stated by (Paul and Elder, 2008) in (Abida, 2016). To read and think critically about every current material, students need to be provided practice in good reading skills. According to Gadzella, (Ginther, & Bryant, 1997) in (Nurmaliah, 2009) there is a close relationship between formal reasoning and critical thinking skills, as long as the level of critical thinking is low it will affect success in areas that require critical thinking as long as the level of critical thinking is low it will affect success in areas that require critical thinking. Based on this fact, improving students' critical thinking skills is an important priority in university education. It is because information and communication technology development are advancing more quickly nowadays, making it easier than ever to access a variety of media, both print and electronic (Behrman, 2006). However, not every one of these readings is pertinent to the requirements of readers. Various reading materials are presented with various purposes. Every text that is presented to the reader has a specific purpose. A number of texts are presented to instill

influence on the reader, such as propaganda and persuasion. In fact, the texts presented can also be a medium to perform dominative acts on readers.

Based on this fact, higher education's teaching and learning methods must adapt to meet the dynamics of current global trends. Reading skills should not only be oriented towards reading comprehension, but further to the ability to read critically and think critically to be able to sort and select various information and make the right decisions about its use. Critical reading skills are needed to respond, assess, and utilize information from various readings appropriately and accurately (Marschall & Davis, 2012). Teaching or practicing thinking skills can help students to become critical thinkers effectively. Through critical reading skills, readers carry out analytical, synthetic, and evaluative thinking processes on the content of the reading. Thus, students will be more critical in responding to various information and readings circulating in the real world. A problem-based learning model is one of the teaching strategies that may be applied to help students improve their ability to reason, communicate, and make connections when solving issues. The discovery learning model is a method for creating active student learning strategies through self-reflection and self-examination, with the goal of producing learning outcomes that are durable in memory and hard for students to forget (Padiya, 2008; Brigenta et.al, 2017; Munir, 2019). Through organizing student learning, discovery learning refers to the process of learning to identify concepts, meanings, and causal relationships.

The application of the guided discovery learning method is carried out according to the learning steps as stated by (Bruner, 1961) namely (1) stimulation (giving questions or encouraging students to observe or read materials), (2) problem statement (giving students the opportunity to identify problems relevant to the subject matter, then selecting and formulating them in the form of a hypothesis), (3) data collection (students are given the opportunity to collect information), (4) data processing (processing data that has been obtained by students), (5) verification/verification (conducting careful examination to prove whether the hypothesis is true or not), and (6) generalization/generalization (holding conclusions). These stages not only make students remember the material provided but also involve the ability to think critically in every reading process that is carried out. The guided discovery learning, according to Wilcox in Nur (2008), can motivate students to learn primarily via their own active involvement with concepts and principles as well as experience in doing experiments that allow them to independently discover principles. The Guided Discovery Learning method has advantages in terms of actively involving students in the learning process which is able to trigger students' thinking skills at any time in teaching and learning activities. The Guided Discovery Learning method is an appropriate way of learning to be applied in reading classes in tertiary institutions, considering that students are currently expected to be able to apply theory learned in college to real-world practice. The responses to real-world issues that are briefly discussed in a variety of argumentation texts might encourage students to become engaged readers who can attentively and critically analyse the reading's contents.

Argumentative literature is one sort of material that can be used to teach reading skills. Argumentative writing's foundation is critical and logical reasoning (Acar & Patton, 2012). Due to this, it must rely on facts or evidence that can be included into the exposition's procedures. But in argumentation there is a stronger motivation. Exposition requires only clarity; therefore, facts are used only sparingly. But argumentation, in addition to requiring clarity, belief mediated by facts / evidence. The ability to argue is part of the ability to think critically and communicate with the aim of convincing or persuading the reader. Thus, the characteristics of argumentation text are closely related to logic and critical thinking skills. Readers of these texts need to understand explicitly the information conveyed in the text, such as recognizing the issues presented, related facts and evidence, and the message to be conveyed (Anderson, 2003). Readers of this text may also be prompted to consider ideas from the outside world, like when they are asked to judge if a decision made in relation to an incident described in a magazine or newspaper is appropriate. Argumentation texts provide greater opportunities for students to use critical thinking skills because of the context and background of each event (ibid). Through the guided discovery learning method, students are encouraged to learn mostly through their own active involvement with the concepts and principles they encounter in their lives. Thus, students acquire knowledge that they do not yet know through notifications, but through self-discovery. The lecturer in this case functions as a facilitator to assist the learning process. As stated by Bruner in (Purnomo, 2011) that the learning process will run well and creatively if the teacher gives students the opportunity to find a concept, theory, rule, or understanding through examples found in real life. As a result, the goal of this essay is to clarify how the guided learning method might be used in a critical reading class to assist students in improving their critical thinking abilities.

2. Method

This research is qualitative research with a case study approach to explore the application of the guided discovery learning method to students' critical reading skills. Case study method enables a researcher to closely

examine the data within a specific context. In most cases, a case study method selects a small geographical area or a very limited number of individuals as the subjects of study (Hamel, et.al, 1993). The data source used in this study came from 36 students at the English Education Study Program of Universitas Negeri Surabaya who took critical reading courses. Data collection techniques used were observation, tests, and questionnaires. The steps in this case study research began with a cycle consisting of four stages which included selecting themes, collecting data, repairing, and writing reports. Data analysis was performed using descriptive analytical techniques. Data analysis is inductive and research results emphasize meaning rather than generalization. Meaning is the actual data, definite data which is a value behind the visible data.

3. Result and Discussion

The guided discovery learning approach is used in the critical reading class to focus learning on issues that arise in real-world settings or specific instances of occurrences in argumentative texts. In this method, pictures are included so that students better understand events and problems in concrete situations. In order for new ideas to develop without being constrained by the demands of the teacher, discussion activities such as questions and responses are also a component of the learning process. Additionally, discussion boards assist students in comprehending other viewpoints and cooperating to find solutions to issues. The application of the guided discovery learning method in reading lectures can be seen in several stages as follows:

Table 1. Stages of Guided Discovery Learning

	Stage	Students' Activity	Lecturer's Activity
1	Orientation	Student notice material explained by the lecturer	Lecturer explains a number of example problem about material as well as the methods used
2	Organize student	From the data provided by the teacher, students compiling, processing, organizing, and analyzing the data together with group that has shared	Lecturer divides student becomes several groups
3	Guiding process	Students in each group make conjectures (forecasts) from the results of the analysis they carry out	The lecturer provides learning tools, while the teacher goes around supervising and guiding groups that have difficulty doing their assignments
4	Presentation	One student from each group has to present their group's findings in front of the class	The lecturer asks one of the students from each group to present their group's findings in front of the class

In applying the guided discovery method there are four stages that must be carried out, namely providing orientation or initial understanding to students regarding what will be done during the teaching and learning process. Furthermore, the selected argumentation texts will be read in depth by each group. This process is important to see the depth of the content of the text as well as hone each student's critical thinking skills. Discussion forums provide new ideas and varied perspectives which lead to a process of collaboration and open-mindedness. The lecturer then becomes a facilitator who guides and directs students according to students' thinking abilities, or in other words the teacher is required to be creative in building students' thinking according to the existing stages to find the concept to be achieved. The last stage of this method is the presentation of the findings which will be presented in an open forum in class. Some of these stages provide opportunities for students to examine events in more depth, stimulate students to ask questions and identify problems, as well as carry out hypotheses and verification to prove whether or not the hypotheses put forward are true. Furthermore, drawing conclusions based on several related facts and in-depth analysis of an event in the argumentation text. Thus, the reading of an argumentative text has undergone several stages of analysis and synthesis which helps students understand the depth of the content of the text and is not easily influenced by hoax.

Following the implementation of the guided discovery learning technique, these critical thinking abilities are then assessed using tests and questionnaires to determine whether students' critical thinking abilities have improved. Questions pertaining to critical thinking abilities are used to administer this test of critical thinking abilities. Among other

skills in making questions from statements, making hypotheses and drawing conclusions. The results of this test can be presented as follows:

Table 2. Critical Thinking Skills Test Results

No	Score	Before the application of Guided Learning Method	After the application of Guided Learning Method
1	The highest Score	100	100
2	The Lowest Score	45	67
3	The Average Score	74.8	82
4	The Completeness of Learning	82.33 %	88.87%

Based on the test results data shows that the success of student learning has increased. It can be seen that the average test in the early stages obtained by 36 students was 74.8 with a learning success percentage of 82.33%. Whereas in the stage after the implementation of the Guided Learning Method the average score increased from 36 or increased to 82 with an increase of 7.5 from the initial average value and with the completeness of the learning cycle at the final stage was 88.87%. Based on the percentage of the learning completeness (88.87%) it can be said that there has been a significant increase after the Guided Learning Method was applied to reading argumentation texts in critical reading classes.

Table 3: The results of the student response questionnaire after the application of the Guided Discovery method

No	Statements	Frequence		Percentage %	
		Yes	No	Yes	No
1	Do you enjoy learning using the guided discovery method?	30	6	80	20
2	Do you feel more focused on learning argumentation texts by applying the guided discovery method?	33	3	92	8
3	Do you like it when the lecturer gives you the opportunity to ask questions that you don't understand??	33	3	92	8
4	Does the learning applied by the lecturer make you interested in reading argumentation texts?	26	10	72	28
5	Are you more motivated to learn after receiving lessons from the teacher using the guided discovery method?	32	4	88	12
6	Do you have any difficulties in learning the material given by the lecturer?	12	24	32	68
7	Do you feel that there is no progress after following the guided discovery learning method?	9	27	28	72
8	Are you quicker to understand reading argumentation texts by the way the lecturer gives lessons?	27	9	75	25
Total				560	240
Average				70	30

Based on the table above, it can be seen that in general, the average student gives a positive response to the learning process through the application of the guided discovery method. Based on the results of the three presentations, namely classroom observations, critical thinking tests, and questionnaires, a significant increase was found in both student scores and learning activities in class. Thus, guided discovery learning is quite effective in providing critical reading comprehension in various argumentation texts used during the teaching and learning process.

According to the study that has been conducted and the findings that have been given through observational data, tests, and questionnaires, the guided learning approach is quite successful at enhancing students' critical thinking abilities. This is in line with the opinion expressed by Kucer (2005) that the advantages of learning with the guided discovery method include being able to help students to increase readiness, develop, and master skills in cognitive processes and students gain in-depth knowledge of the reading process. From the results of the questionnaire, it is also known that students like the guided learning approach because it gives flexibility in the learning process and working on the questions given.

4. Conclusion

Based on the study that has been conducted and the outcomes that have been presented regarding the results of observations, tests, and questionnaires, it can be said that the use of the guided discovery method in critical reading classes, especially in argumentation texts, is capable of optimizing students' thinking skills because they provide an overview or orientation regarding the activities to be carried out. Diverse grouping also allows for debate and question-and-answer sessions, which can help students develop their critical thinking abilities. The selection of argumentation texts rich in logic and evidence is also highly beneficial for strengthening the use of critical reading abilities. Students' comprehension of reading is further facilitated by issues in argumentation texts that are relevant to daily life, enabling them to complete the phases of stimulation, synthesis, and analysis by freely expressing their viewpoints.

Acknowledgments

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