

Investigating Teacher's Higher Order Thinking Skills Strategies in EFL Teaching Reading at Vocational School Context

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Abstract

The current study intends to investigate the strategies used by teachers to improve students' higher-order thinking skills in teaching reading and to investigate the challenges faced by teachers in improving students' higher order thinking skills in teaching reading at One Vocational School in Cirebon. This research uses descriptive qualitative research. The subject of the research was one English teacher who teaches two classes in tenth grade students at One Vocational School in Cirebon. Data collection is obtained through observation and interviews. The findings show that the number of strategies used by teacher is five types of teaching strategies, namely informing learning objectives, divergent questions, group discussions, giving feedback, and motivating. The researcher also found four challenges faced by teacher was time, students learning ability, student's mastery, and planning domain. This happens because students still do not understand higher order thinking skills. It is suggested that the teacher must encourage active learning and always motivate students.

Keywords: *Teacher's Strategies; Teacher's Challenges; Higher Order Thinking Skill*

INTRODUCTION

Education is one of the significant aspects to influence the national vision. Success in implementing education is the key to a better future. It requires the contribution of many parties, one of which is the teacher. The role of teachers is hugely influential because they put all education policies and regulations into practice (Yuliati & Lestari, 2018). Wahidah et al (2012) mentioned that education brings a huge impact in creating economic wealth, social prosperity, and political stability. With the massive impacts that education offers, it is undeniable that education is expected to support the government's effort in preparing young generations to face the recent development.

Nowadays, the ability to analyze and evaluate information will direct students to become critical thinkers. So, students will gradually be able to produce creative ideas to be able to overcome problems. Thinking skills can only be achieved by students by developing their reading skills which require students to understand the words spoken and decode written words which results in a deep understanding of the text. Critical thinking is closely related to reading because reading involves critical thinking skills to reveal the depth of meaning or meanings as well as provide an assessment of the text read. Reading can be stimulation to build and develop critical and creative thinking (Mahfuzah

et al., 2018).

HOTS is a way of thinking that is higher than just memorizing facts, finding facts, or applying rules, formulas, and products. HOTS makes us do things based on facts by categorizing them, manipulating them, placing them in new contexts, and being able to apply them when looking for solutions to a problem. This skill is used to underline various higher order thinking processes according to Anderson & Krathwohl (2020).

According to Bloom Taxonomy which was revised by Anderson and Krathwohl (2010), the cognitive domain consists of remembering, understanding, applying, analyzing, evaluating, and creating. The reason for using Taxonomy Bloom as a basis for learning is because it is a powerful tool for developing learning goals because it illustrates the learning process. By following the learning process, students' thinking skills will gradually increase. In other words, by applying Bloom's taxonomy in the learning process, students will be encouraged to achieve critical and creative thinking. HOTS include analyzing, evaluating, and creating a focus on critical thinking, logical thinking, reflective thinking, metacognitive thinking, and creative thinking. Furthermore, this refers to the ability to apply knowledge, skills, and values in reasoning, reflection, problem-solving, decision making, innovating and creating something new.

One of the new lessons in the 2013 curriculum is the application of the concept of higher order thinking skills. The purpose of implementing HOTS in learning in the 2013 curriculum is to condition students to be able to provide critical criticism, logistics, sites that are in accordance with the characteristics of the subject, and have high thinking skills.

Being able to think critically means that students can apply the skills and knowledge they develop while learning new topics. Nevid et al. (2011) stated that there are five steps to develop the ability to think critically. There are determining the learning objectives of reading class, teaching through questioning, ordering students to practice, reviewing, refining, and improving understanding, and practicing feedback & assessing learning. It must integrate these five steps to optimize critical thinking in students.

The relationship between reading skills and critical thinking has been highlighted by cognitive psychology. According to Aloqaili (2012), comprehension itself has been seen as a critical thinking process. For instance, from a schema theory description of reading, they can conceptualize comprehension as a critical thinking activity. Reading as an activity of critical thinking becomes easier to manage if it recognizes some reading as automatic and essential (Aloqaili, 2012). Introducing higher-order thinking skills to solve reading problems can facilitate students to develop their comprehension of the text.

According to research conducted by Fauzan (2019), there are five strategies for improving reading using higher-order thinking skills. Those are asking a divergent question, informing learning aim, group discussion, giving feedback, and giving motivation. Teachers can bring interesting reading based on students' interests and language ability. Teachers can prepare their students to read and develop their thinking by showing attractive visual aids related to the topic, modeling predictions, asking questions, and encouraging their discussion. However, the problem comes when many students do not understand the content of the reading because students only translate it word for word without understanding the meaning of the text. Many teachers ask students to read the text and answer questions without understanding the text first. Finally, students get low grades and consider incapable of reading comprehension.

Based on the 2013 curriculum, a teacher is able to develop students' higher order thinking skills. Research conducted at one vocational school in Cirebon, has shown that some teachers have applied the skills. It has shown that some teachers have applied higher-order thinking skills in learning and making test questions. One form of implementation is daily test questions and questions that have applied the level of thinking ability. In addition, the assessment method has also developed a high-level assessment instrument.

The researcher chose a teacher as the research subject. Educating students with Higher Order Thinking Skills (HOTS) means enabling them to think. Students can think about applying their knowledge and developing their skills in new contexts. From here, the teacher's role is very large in helping students think critically. Based on the above background, researcher is interested in know the teacher's strategy using HOTS, especially in reading.

Higher Order Thinking Skill (HOTS)

According to Thomas (2009), higher-order thinking skills take thinking to a higher level than simply stating facts. It requires us to do something with the truth. We must understand them, connect them, categorize them, manipulate them, put them together in new or novel ways, apply them as we seek new solutions to new problems. Higher order thinking is a mental process, it cannot be observed directly, but some actions reflect thinking and this is called cognitive skill according to Ozgelen (2012).

Higher Order Thinking Skills (HOTS) is a thinking process that requires students to manipulate existing information and ideas in a certain way that gives them new understanding and implications. HOTS is the ability to think at a higher level when a person associates newly received information with information already stored in his memory, then connects and develops that information so as to achieve a goal or solution to a difficult situation to solve (Fanani, 2013).

Teaching Strategy

According to Dhillon et al., (2020), strategy is a shared means of purpose and length to reach. Strategies in learning can make a process of learning active. It consists of components such as, teacher, student, and facilities. Each component has its respective role. Like teachers who have compiled lesson plans, teachers must also prepare tricks to create effective and efficient teaching and learning activities. This trick is what is called a teaching strategy.

Strategies for Improving HOTS in Teaching Reading. Higher-order thinking skills are the ability to build, understand, and transform the knowledge and experience that acquire to find decisions and solve problems in new situations. Marina (2015), stated that HOTS is linked to an increased understanding of reading for senior high school students. Therefore, teachers should integrate and develop the skills to enable students to think at a learning level. According to Marina (2015).

METHOD

This research employs qualitative methods by using descriptive qualitative design. The researchers apply a set of procedures used for problem-solving based on the factual data. According to Creswell (2014), the qualitative method is an inquiry process of understanding based on distinct methodological traditions of inquiry that explore a social

or human problem. Qualitative research is conducted through intense and/or prolonged contact with participants in a naturalistic setting to investigate every day and or exceptional lives of individuals, groups, societies, and organizations. Where the researcher is the key instrument, sampling is done by purposive data, collection technique by triangulation, data analysis is inductive or qualitative with the result emphasizing on significance and purpose rather than generalization.

In this research, the researcher analyzed teacher’s strategies to enhance students’ Higher Order Thinking Skill (HOTS) in teaching reading to the tenth-grade students at one vocational school in Cirebon. In line with this statement, the researcher applied the descriptive qualitative method because the data to be investigated are strategies used by the teacher when teaching reading. The data is a recording of the teaching-learning process when the teacher teaches reading material in the classroom. The research aims to describe the factual data supported by the theories which are proposed by several experts.

RESULTS AND DISCUSSION

The teaching strategies used by the teacher to enhance students’ HOTS in teaching reading.

Implementing HOTS in the teaching and learning process of reading skills is needed. Teachers should have several strategies in the teaching and learning process, specifically when teacher apply HOTS. This data findings are related to the teacher to enhance students’ HOTS in teaching reading. Based on the observation at one vocational school in Cirebon, type of strategies used by teacher to develop HOTS in teaching reading, the researcher found five types of teaching strategies by teacher. there were five strategies used to develop critical thinking skills. The strategies were (1) informing learning objectives to students, (2) teaching through a divergent question, (3) using discussion, (4) provide feedback to review, refine, and improve understanding and (5) motivating students. Those five strategies were used by the teacher at one vocational school in Cirebon to develop student’s critical thinking in reading skills. The researcher has finished observations and interviewing the teacher to find out some strategies in developing HOTS. According to the findings of this study, the strategy to develop HOTS found from six observation are informing learning objectives 12 data, divergent questions 31 data, group discussion 3 data, giving feedback 13 data, and giving motivation 12 data.

Based on observations , the teacher used several steps in teaching reading skills, such as informing learning objectives, asking divergent questions, group discussion, giving feedback, and giving motivation. The researcher clarified the details of the strategy below.

a. Informing learning objectives

Learning objectives help to inform learning objectives to students. Therefore, a teacher in planning learning is required to be able to formulate learning objectives clearly and firmly. From the research that has been done, the research found 12 data about strategy to inform learning objectives. One of the data will be explained below.

Class	Types of Strategy	Frequency
X TITL 1	Informing learning objectives	7
X TITL 2		5

Tabel 1. Result of the data obtained from the strategy laerning objectives

One of data showed below:

Teacher : Today we will learn about descriptive text. Descriptive text is text that is used to explain something. The theme is about the objects in this class.

From the observation above, the teacher explained about the descriptive text. The teacher discussed the purpose of the descriptive text is to describe something. The teacher also explained that the students would have discussions with their peers. Besides, students will also create their descriptive text.

After that, the teacher explained that the students would have discussions and presentations with their friends in teaching reading skills. Apart from that, they would also create a description text. It can be seen below:

Teacher : Later we will discuss with our classmates to learn descriptive text about objects in class. At the end, you will make a descriptive text from the objects around you. After that if the time is still enough, one of the presentations. Understand?

The teacher informed the purpose of the learning in the teaching and learning process at the beginning of the class. The topic was descriptive text about the objects in the classroom. The teacher informed about the discussions conducted between the students, and in the end, students have to make descriptive text. The teacher used this strategy to apply HOTS in teaching the reading skill to develop student’s critical thinking to brainstorm, analyze, and create descriptive text in the classroom. The purpose of informing the learning objectives is that students can appreciate the descriptive text and also appreciate the technique used by the teacher.

b. Teacher gives question trough divergent question

The process of questioning requires the readers to ask themselves questions to develop meaning, increasing understanding, find answers, solve problems, find information and discover new information. Based on the observations, the teacher used divergent questions in the teaching strategy.

From the research that has been done, the research found there were total 31 data about strategy of teach through divergent question. One of the data will be explained below. Meanwhile, the total amount of data obtained can be seen in the table below:

Class	Types of Strategy	Frequency
X TITL 1	Teacher gives question trough divergent question	14
X TITL 2		17

Divergent questions are types of questions on finding the correct answers by making students analyze and create. Teachers used questions to review, examine learning, and challenge students to do critical thinking. These questions can improve students’ skills in analyzing the descriptive text delivered by the teacher. After being analyzed, then the created their descriptive text.

1) Analyzing

In analyzing the descriptive text, the teacher invites students to analyze the material about descriptive text listed in the textbook first. After that, the teacher invites students to analyze the items in the students' bag. It could be seen in the teaching and learning process as follow:

Teacher : Look at your bag! What thing do you find in your bag? Let's try it out...Then, identify the things that you bring in your bag.

In the script above, the teacher ordered students to analyze the material about descriptive text listed in the textbook. They were the name of the things that students often have in their bags. After that, the teacher invited the students to analyze the items in the bag.

2) Creating

After analyzing things in students' bags, the teacher ordered the students to make descriptive text based on the things they found in bag. The script is as follow:

Teacher : Okay, for those who have, try to describe the thing that you and your friend's have. Same with my friend. Created paragraphs. For example..."

Based to the script above, after explaining, the teacher invited the student to identify the items in the students' bag and then asked them to make descriptive text after analyzing the items in the students' bag. The teacher allowed students to work together with their classmates.

The process of questioning required the reader to ask themselves with critical questions to enhance understanding, build meaning, solve problems, find answers, discover extra information, and search for information. Teachers used questions to review, examine learning, and challenge students to do critical thinking. Teacher also asked them to link the materials to their own life. High-level questions can improve students' skills in analyzing and practice writing descriptive text by themselves.

c. Using Group Discussion

The teacher encouraged active learning in the classroom. Students can develop and be more active in the teaching and learning process by doing or creating something the teacher ordered. From the research that has been done, the research found 3 data about strategy of group discussion. One of the data will be explained below. Meanwhile, the total amount of data obtained can be seen in the table below:

Class	Types of Strategy	Frequency
X TITL 1	Using group discussion	2
X TITL 2		1

In the previous statement, after the teacher explained, the teacher asked students to identify the material by themselves. Then teacher instructed students to

make a descriptive text together with their peers. Then, if students complete the assignment, the teacher directs students to make a presentation in front of the class. An example of student-teacher dialogues is shown below.

Teacher : Okay, for those who have, try to describe the thing that you and your friend's have. Same with my friend. Created paragraphs. For example, "I have blab blab.."

Student : Ooh, did you make something like that, ma'am, paragraph?

Teacher : Yes. For example, "I have two rubbers and fildan have one rubber" understand?

Student : Yes. (After doing the assignments)

Teacher : This is because the time has run out, which can be collected in the future huh. The presentation is next week's meeting, okay?

Based on the observation result above, after students have understood the explanation from the teacher, the teacher asked them to make a descriptive text. After completing the assignment, students must present their work in front of the class. However, because of insufficient time, the teacher decided that the students should collect their work first and would make presentations at the next meeting. From the above dialogue, it can be seen that the teacher used discussion to train students to carry out text analysis procedures with their peers. After students have finished working on the assignment given by teacher, students must present their work.

d. Giving Feedback

After the learning process is complete, the teacher used remain time to provide feedback and assess learning to students. From the research that has been done, the research found 13 data about strategy of giving feedback. One of the data will be explained below. Meanwhile, the total amount of data obtained can be seen in the table below:

Class	Types of Strategy	Frequency
X TITL 1	Giving feedback	9
X TITL 2		4

Provide feedback aims to invite students to start reviewing, refining and improving understanding of the material that has learned. Before the lesson is over, the teacher asked the students to review, refine, and improve understanding regarding the material learned that day. It could be seen below :

1) Review

One of the most powerful ways to find out if learning is like what the teacher expected is to include time to review what has learned. Reviews make it easier for students to consider information and accelerate students to store memories in their brains. This strategy challenges students to recall each lesson subject that has been studied.

Teacher : For our lesson today, what have we learned today?

Student : About Descriptive Text, sir.

Teacher : Descriptive text. Yes that's right. Good job.

From the observation above, it concluded that the teacher reviews the lessons learned that day before the class finished. It aimed to find out whether students are focused on the learning process or not.

2) Refine

Refine helps students to broaden the understanding of a concept and deepen it. It also helps to apply thinking skills and application of knowledge.

Teacher :What is Descriptive Text? Still remember?

Student : Text to describe something sir.

Teacher : That's right. Earlier, we described the items in your bag. Did you try anything?

Student : Pencil, Rubber! Teacher: That's right. Come on, read it right, it's Rubber!

From the observation above, it concluded that the teacher always refines the lessons learned that day. When refining the students' understanding, teacher asked students what descriptive. Also, teacher gave correct pronunciation for students who still mispronounce. This is done before the class finished. It aimed to find out whether students focused on the learning process.

3) Improve understanding

Helping students develop metacognitive skills is critical for learning. Studies have shown that students believe they learn less during active lessons like projects as opposed to passive subjects like lectures.

Teacher : What was the descriptive text about? Anybody know?

Student : About the items in the bag, sir.

Teacher : Yes, correct. The items in your bag are explained one by one, then a list was made, after which a paragraph was made. Did you understand the meaning?

Student : Yes sir.

According to the observation above, teacher asked about what descriptive text to improve students understanding so that students would not be confused later on. Then the teacher explained again what has been learned that day and ask whether the students really understand it or not.

Based on the observation result above, the teacher provides feedback to students and invited students to review, refine, and improve understanding before learning is over. The teacher reviews the material with students so that students become more active. After reviewing the material, the teacher develops the material with students. It aims to help students to improve their skills in criticizing by ensuring that students have fully understood with the material. Then, teacher assessed students during the review, refine, and improvement stages. All these things were done to know whether students really understand the material or not. This is also done to determine the ability of students about how successful the strategy is for students.

e. Giving Motivation

Motivation is an important thing that teacher must give to their students. Motivation plays an important role for students because it can foster student enthusiasm when the learning process takes place. From the research that has been done, the research found 12 data about strategy of giving motivation. One of the data will be explained below. Meanwhile, the total amount of data obtained can be seen in the table below:

Class	Types of Strategy	Frequency
X TITL 1	Giving motivation	7
X TITL 2		5

Motivation can be used to make students always focus when studying. In connection with this, the teacher always motivates students when teaching in class. This can be seen from the interview below:

Researcher : Do you think that giving motivation is very important?

Teacher : Yes, it is very important, because there are a lot of subjects here ... especially in the English course, sometimes in the last hour, students are getting sleepy and so on, so there must still be motivation.

Researcher : What motivation do you give to students in each lesson?

Teacher :before entering, you are given an ice breaker or a short game, or singing, which is in accordance with the material... Then add points too. So a child who can answer will get points, or a child who can answer will be able to be free of remedial that already makes the child happy ... It has motivated the child to try hard in answering questions.

From the interview above with Mr. NF, he said that motivating students was great. Teachers motivate in several ways. he sometimes gives ice breaking or games that have the same theme as the subject lesson. Also, she provides rewards such as providing added points for students who can answer questions correctly. In the observation, teacher motivated the students in the teaching and learning process:

Teacher : ... Can anyone understand what that means? Raise your hand, try later, you will get points that you can answer.

Student : I am sir.

Teacher : Yes, who is that? Dimas?

Student : Yes, Dimas, sir. Teacher : Okay. Please.

From the observation above, teacher gave a challenge to students. Students who can answer the questions from the teacher will get additional points. With this, it increased students' motivation to answer the questions, as well as motivate students to think critically about the material they have learned.

Motivation is the main important factor that stimulates critical thinking and creativity. The teacher motivated students to think critically by asking questions about the material that has been studied. If the students can answer correctly, they will get praise and additional points. Sometimes even the teacher gave other prizes that can be used by students

to study. Which stated that critical thinking can empower students to be motivated to learn more persistently when faced with a task. Therefore, providing challenges can motivate students to learn how to get more involved. With this strategy, it can foster critical thinking in students when learning how to read.

CONCLUSION

The teacher used five strategies to develop higher-order thinking skills. The strategies were (1) informing learning objectives; (2) divergent question; (3) group discussion; (4) giving feedback; and (5) giving motivation. If students use HOTS, they able to think critical and creative. The prior knowledge applied by students in learning and teaching process, increase their interest and participation, and think more critically. HOTS strategy can increase the tenth-grade students of one vocational school in Cirebon Reading comprehension's skill because HOTS encouraged students to understand the text's content through intensive reading, and also the researcher asks students questions to assess their comprehension of the reading text. It means that the strategy for HOTS affects Reading Comprehension's skill of one vocational school in Cirebon. This research was not imperfect. The experiment was carried out by only two classes from a single school. This conclusion was not available to be applied to students from another level of education or schools. Future research on this topic should consider these limitations and larger sample sizes, and more schools at different educational levels.

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