



TEACHERS' STRATEGIES IN INCORPORATING HIGHER-ORDER THINKING SKILLS IN READING CLASSES

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Abstract:

Higher-order thinking skills (HOTS) have been mentioned in education including teaching and learning English as a foreign language in Vietnam. However, how to integrate HOTS into teaching, particularly reading skill, has been one of the greatest concerns of EFL high school teachers in the current context. Therefore, the study was carried out to explore teachers' strategies for incorporating HOTS in reading classes. Questionnaires, classroom observations, and semi-structured interviews were employed to collect data from eighty high school teachers. The findings of the research indicate that the strategies for applying HOTS in reading were playing games, making predictions, modeling, structuring the classroom, asking questions and giving feedback. Pedagogical implications for teachers and school administrations are presented.

Keywords: reading, higher-order thinking skills (HOTS), strategies

1. Introduction

Several studies have shown that higher order thinking skills (HOTS) are a process of critical and creative thinking skills in processing information and resolving complex problems (e.g., Brookhart, 2010; Byrnes, 1996; Lewis & Smith, 1993). These authors indicate that HOTS must be taught in order to develop students' ability for thinking critically, connect knowledge to the real world, master information technology and work together. Moreover, in Vietnam, the new program of teaching English to students focuses on developing critical thinking and problem-solving competence for students so that they can present their reasons, and explain their ideas and plans (MOET, 2017). However, in the context of teaching reading at Vietnamese high schools, students had little exposure to strategies to process information presented to them (Nguyen & Nguyen, 2018). Additionally, a plethora of research has explored instructional methods for

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implementing HOTS in teaching reading (e.g., Ansori et al., 2019; Fitriani et al., 2021; Rusdiana & Hikmat, 2020). However, little research has been carried out to investigate teachers' strategies in integrating HOTS into reading classes within the context of teaching and learning at high schools in the Mekong Delta, Vietnam. This study is therefore aimed at examining this practice. The research question that guided the study reported in this paper was, "What are teachers' strategies in incorporating HOTS in reading classes?"

2. Literature Review

The following section reviews the literature on reading comprehension, higher-order thinking skills, and strategies to incorporate HOTS in reading classes with regard to how these were defined for this study.

2.1 Reading Comprehension

There are several perspectives on reading comprehension in the literature. Reading comprehension is a sophisticated activity that requires a reader's capacity to integrate text information with his or her knowledge (Anderson & Pearson, 1984; Nuttall, 2005). Thus, reading comprehension involves a process of connecting a reader's existing knowledge with new information to obtain the main idea of a particular text passage. This definition is supported in the literature by other researchers (e.g., Nuttall, 2005; Pang et al., 2003) who define reading comprehension as an interactive process that takes place between a text, a reader, and his or her prior knowledge. In the same vein, Grabe (2009) asserts reading comprehension is a meaning-making process of a given text passage. Taken all perspectives together, for the purposes of the study, reading comprehension is defined as a process that first decodes the information and then constructs meaning through active interaction between the reader and the writer.

2.2 Higher-order Thinking Skills (HOTS)

In several contexts of English as a foreign language where educational reforms demand teachers to promote the quality of teaching and learning, HOTS is widely advocated as a way to provide learners with the opportunity to enhance their learning and communicate their knowledge to others (Anderson & Krathwohl, 2001; Nuttall, 2005). In particular, in reading classes, HOTS refer to an individual's ability to apply new information or knowledge to figure out the answer to some questions. This definition is close to what Lewis and Smith (1993) define HOTS as a thinking process that occurs "*when a person takes new information and information stored in memory and interrelates and extends this information to achieve a purpose or find possible answers in perplexing situations*" (p.136). This conceptualization highlights that learners need to examine the information given based on their own experience. Anderson and Krathwohl (2001) state that HOTS are analytical skills that demand learners as readers to compare, evaluate, or even reject information generated from a specific context. This view suggests that HOTS are thinking processes that entail learners or students to connect the information in meaningful ways and use

these connections to solve problems. Drawn on the above-mentioned perspectives, HOTS are defined as critical thinking which involves readers' skills of evaluating information and making inferences or judgements of the information presented to them.

2.3 Strategies to Incorporate HOTS in Reading Classes

A strategy is a plan or series of activities designed to achieve a particular goal. In the teaching and learning process, strategy means an entire plan of the meaning-making process of printed material (Aini & Azizah, 2019). For the purpose of this study, strategy is defined as a way that involves readers or students in performing a given task.

There are several types of strategies that can be used by teachers in reading classes. Ennis (1985) argues that the teacher should be aware of the components of HOTS that consist of several skills such as defining and clarifying, judging the credibility of a source, solving problems and drawing conclusions. Teachers can support the development of HOTS by asking students many questions which require students to seek information, analyse, apply, and evaluate it.

A study conducted by Ansori and his colleagues (2019) examined a case study to explore teachers' beliefs in the integration of HOTS in teaching reading and how it impacted upon classroom practices. The findings show that strategies such as group work, questioning skills and games were used to promote HOTS in reading classes.

Rusdiana and Hikmat (2020) investigated the strategies used by the teachers to develop students' higher thinking skills in reading class. Observations, interviews and document analysis were employed in this study. The findings show that the strategies used by the English teachers to promote students' higher thinking skills were making predictions, activating the students' schemata, drawing inferences and encouraging questions.

A study conducted by Fitriani and his colleagues (2021) investigated the strategies used by teachers when applying HOTS to reading classes. It applied a qualitative approach with a case study research design. Observations and interviews were used to gather data from two English teachers. The findings indicate that there were five types of teaching strategies, including learning objectives, divergent questions, group discussion, feedback-giving and motivation.

Despite studies on teachers' strategies in implementing HOTS in teaching reading, little research has investigated teachers' strategies in EFL high school context, particularly in the Mekong Delta, which helped facilitate students' comprehension of particular text passages. This paper, therefore, examines this area of interest.

3. Methodology

A mixed-methods approach was employed to explore teachers' strategies for incorporating HOTS in reading classes. A mixed-methods approach, the combination of both quantitative and qualitative methods, was intended to provide an in-depth understanding of research problems than does the use of either quantitative or qualitative approach alone (Fraenkel et al., 2012).

Quantitative data in this study were collected by using questionnaires to assemble data about teachers' strategies for incorporating HOTS in reading classes. The questionnaire comprised two sections with twenty-six items, regardless of the first section related to participants' personal information (gender, age, and years of teaching experiences). Section Two of the questionnaire including twenty-six items was categorized into four clusters, namely Questioning, Structuring the classroom, Teacher's responses, and Modeling, adapted from teachers' practice of implementing critical thinking in the EFL context (Al-Kindi & Al-Mekhlafi, 2017). This section using the 5-point Likert-scale of the level of frequency ranging from (1) *never*, (2) *rarely*, (3) *sometimes*, (4) *usually*, (5) *always* was used to investigate EFL teachers' strategies in incorporating HOTS in reading classes. To complement the qualitative data, semi-structured interviews were conducted with six participating teachers to gain insights into how teachers implemented HOTS in their reading classes. To triangulate the data collection, observations were conducted with two teachers to further explore the strategies applied in teachers' reading classes.

Participants in this study were 80 teachers who were teaching at different high schools in the Mekong Delta. The participant selection was based on convenience sampling. This sampling is less time-consuming than contacting all teachers in simple random sampling (Fraenkel et al., 2012). Of this sample, 27 teachers (33.7%) were male and 53 teachers (66.3%) were female. At the time of the study, the range of the teachers' overall teaching experience was 1 to 24 years. Pseudonyms were used to protect teachers' identities.

The questionnaire items and interview questions were sent to the supervisor to check for clarity of the content validity of the instruments. They were then piloted to avoid ambiguity in the questions presented to participating teachers and increase the reliability of this data collection (Fraenkel et al., 2012). The reliability of the questionnaire delivered to 30 teachers was confirmed with the Cronbach's alpha at .89. Interview questions were piloted to two teachers. Data and information obtained from the pilot interviews were used to revise the instruments for the official round. The quantitative data from the questionnaire were analysed using an SPSS (Statistical Package for the Social Sciences) version 20. Data gathered from interviews were transcribed and translated from Vietnamese into English, read carefully and coded using thematic analysis (Boyatzis, 1998). With regard to the observations, the scenarios were described as examples of the strategies that teachers used in reading classes.

4. Findings

This section reports the findings of the study with regard to teachers' strategies for incorporating HOTS in reading classes.

4.1 Findings from the Questionnaires

Section Two of the questionnaire of twenty-six items presents teachers' strategies for incorporating HOTS in reading classes. These items were divided into four clusters: questioning, structuring the classroom, teachers' response and modeling.

A Descriptive Statistics Test was run to obtain data on teachers' strategies in incorporating HOTS in reading classes. Table 4.1 presents the findings of the test.

Table 4.1: Teachers' strategies in incorporating HOTS in reading

	N	Minimum	Maximum	Mean	Std. Deviation
Questioning	80	2.89	5.00	3.88	.50
Structuring the classroom	80	2.25	5.00	3.67	.66
Teacher's response	80	2.89	5.00	3.86	.48
Modeling	80	3.00	5.00	4.15	.50
Total	80	3.00	5.00	3.88	.44

Table 4.1 indicates that teachers' strategies in incorporating HOTS in reading classes were at a high level ($M = 3.88$). *Paired Samples T-test* was run to compare the means of two pairs namely; questioning, structuring the classroom and teacher's response, modeling. The finding indicated that there was a difference between the two means was observed ($t = 3.5$, $df = 79$, $p = 0.01 < 0.05$) and ($t = - 6.0$, $df = 79$, $p = 0.00 < 0.05$). Participants' strategies when implementing HOTS in reading classes are different.

In Cluster One, nine items were presented to participants to obtain responses on their use of the questioning strategies in reading. Table 4.2 indicates the results of teachers' responses to this cluster.

Table 4.2: Percentages of teachers' strategies in incorporating HOTS through questioning

Items	Never & rarely		Sometimes		Usually & always	
	F	P (%)	F	P (%)	F	P (%)
1. I use open-ended questions to help learners elaborate on their answers.	4	5.0	14	17.5	62	77.5
2. I ask questions of varying difficulty from simple factual recall to more complexity to help learners brainstorm the content of the texts.	3	3.8	10	12.5	67	83.7
3. I ask questions to activate learners' knowledge related to the topic.	3	3.8	19	23.8	58	72.4
4. I ask questions to help learners distinguish between facts and opinions in the texts.	10	12.5	18	22.5	52	65
5. I ask questions to require learners to predict the meaning of unfamiliar words or sentences in the texts based on the context.	2	2.5	11	13.8	67	83.7
6. I ask learners to find out the main purpose of the texts by asking 'What can you learn from the title...?', 'What's your impression...?' or 'What does this evidence imply...?' questions.	4	5.0	21	26.3	55	68.7
7. I ask follow-up questions to require learners to look for evidence to justify their responses.	2	2.5	10	12.5	68	85

8. I require learners to ask and answer information related to the content of reading texts.	9	11.3	14	17.5	57	71.2
9. I use questions to ask learners to summarize the content of the texts in their own words.	11	13.8	25	31.2	44	55

Table 4.2 shows that 85% of the participants ($n = 68$) usually asked follow-up questions to require their students to clarify and justify their responses. 83.7% of the teachers ($n = 67$) usually asked questions to help them predict the meaning of new words or sentences and brainstorm the content of the texts. 77.5% of them ($n = 62$) asked open-ended questions to help learners elaborate on their answers, followed by those ($n = 58$) who asked questions to activate learners' knowledge related to the topic with 72.4%. 57 participants usually require learners to ask and answer information related to the content of reading texts. 68.7% of the teachers ($n = 55$) usually asked questions to help them find out the main purpose of the texts. 65% of the participants ($n = 52$) said that they used questions to require learners to distinguish between facts and opinions in the texts. 55% of them ($n = 44$) agreed that they used questions to ask learners to summarize the content of the texts in their own words.

Structuring the classroom strategy in the questionnaire was presented in Cluster Two (items 10-13), as shown in Table 4.3.

Table 4.3: Percentages of teachers' strategies
in incorporating HOTS through structuring the classroom

Items	Never & rarely		Sometimes		Usually & always	
	F	P (%)	F	P (%)	F	P (%)
10. I ask learners to work in pairs to determine the main ideas of reading texts.	8	10	16	20	56	70
11. I divide students into groups to argue questions in reading texts.	3	3.8	15	18.7	62	77.5
12. I ask learners to work in groups to present what they have learned in creative ways such as posters, mind-maps, poems, or diagrams.	22	27.5	20	25	38	47.5
13. I organize a debating class to provide an opportunity for all students to negotiate with each other.	15	18.7	19	23.8	46	57.5

Table 4.3 shows that 77.5% of the teachers ($n = 62$) always or usually divided learners into groups to answer the questions. 56 teachers always or usually asked learners to work in pairs to determine the main ideas of the reading texts. However, 23.8% of the participants ($n = 46$) sometimes organized a debating class to provide an opportunity for all students to negotiate with each other. Up to 27.5% of the teachers ($n = 22$) rarely or never asked learners to present what they have learned in creative ways such as posters, mind-maps, poems, or diagrams.

Nine items in Cluster Three were used to examine teachers' strategies in their reading classes. Table 4.4 shows the result of teachers' responses to this cluster.

Table 4.4: Percentages of teachers' strategies in incorporating HOTS through teachers' responses

Items	Never & rarely		Sometimes		Usually & always	
	F	P (%)	F	P (%)	F	P (%)
14. I give positive feedback to motivate learners' reaction.	3	3.8	7	8.8	70	87.4
15. I receive learners' contributions without judgment to encourage exploring possibilities.	17	21.3	13	16.3	50	62.4
16. I spend time for learners on revising the information in the texts to clear up any confusion they may have before giving the correct answer.	1	1.3	14	17.5	65	81.2
17. I invite other learners to evaluate their friends' answers.	2	2.5	16	20	62	77.5
18. I explain what is accurate and inaccurate about learners' answers.	5	6.3	10	12.5	65	81.2
19. I encourage learners to create their own stories based on the context of the texts.	21	26.3	27	33.7	32	40
20. I encourage learners to create their own questions on the topic that they have just learned.	19	23.8	20	25	41	51.2
21. I encourage learners to access their prior knowledge to understand new information in the texts.	1	1.3	10	12.5	69	86.2
22. I motivate learners by showing enthusiasm or giving encouragement when they work on difficult tasks.			7	8.8	73	91.2

Table 4.4 shows that a great number of the teachers (91.2%) always or usually motivated learners by showing enthusiasm or giving encouragement when learners work on difficult tasks. 87.4% of the participants ($n = 70$) usually gave positive feedback to motivate learners' reactions. 86.2% of the teachers usually encouraged learners to access their prior knowledge to understand new information in the texts. Moreover, 81.2% of the teachers ($n= 65$) usually spent time for learners to revise the information and explain what is correct and incorrect about their answers. However, up to 26.3% and 32.8% of the teachers rarely or never encouraged learners to create their own questions or stories based on the content of the texts.

Four items in the last cluster of the questionnaire were used to examine teachers' use of the modelling strategies in reading, as shown in Table 4.5.

Table 4.5: Percentages of teachers' strategies in HOTS through modelling

Items	Never & rarely		Sometimes		Usually & always	
	F	P (%)	F	P (%)	F	P (%)
23. I model contextual examples when teaching vocabulary so that learners will know how to create their own examples.	2	2.5	11	13.8	67	83.7

24. Teaching aids (e.g., charts, pictures, gestures) were used to enhance learners' understanding of the concepts or unfamiliar words in reading texts.	1	1.3	9	11.3	70	87.4
25. I provide enough guidance so that learners gradually come up with the answer.	2	2.5	6	7.5	72	90
26. I simplify questions or ask them from a different perspective that may give learners a better understanding of the question.	2	2.5	11	13.8	67	83.7

Table 4.5 shows that a great number of the teachers ($n=72$) usually provided guidance when learners misunderstood questions. 87.5% of the teachers ($n=70$) usually used pictures, and charts to enhance learners' understanding of the concepts or unfamiliar words in reading texts. Meanwhile, 83.7% of the teachers ($n=67$) agreed that they usually modelled contextual examples when teaching vocabulary and simplified questions to enhance learners' understanding of the concepts in reading texts.

4.2 Findings from Classroom Observations

The findings indicate that the strategies used by the participants were playing games, making predictions, modelling, structuring the classroom, asking questions, and giving feedback. The following scenarios illustrate the strategies used by the teachers in their reading classes.

Scenario 1

The students were asked to match the pictures with the names of sources of energy and then answered questions. In the following example, the teacher led the students to revise their prior knowledge about kinds of energy.

T: *Have you ever seen these pictures?*

Ss: *Of course, teacher. It is too easy.*

T: *Now, I will stick these pictures on the left of the board and the names of them on the right. You will look at these pictures and match them with the names of sources of energy. Is it clear?*

Ss: *Yes.*

T: *Our class will be divided into two big groups and each person of each group will go to the board. You will pick up one picture and match it with one word, others will continue until you finish the game. The group with the more correct answer will be the winner and will get one gift. Are you ready?*

Ss: *Yes.*

T: *Let's start.*

Then, the students were asked to predict unfamiliar words based on the context of the passage. The following scenario reveals how the teacher had students work on the meaning of "fossil fuel".

T: *Who knows what 'fossil fuel' means?*

Ss: *Silent.*

T: *Ok. Look at the first sentence in the passage, page 124. Do you see the keywords 'coal, oil, and natural gas'.*

Ss: *Yes, I see.*

T: *So, can you guess the meaning of 'fossil fuel'?*

Ss: *It was formed over millions of years.*

T: *Excellent! Thank you.*

While students could not guess the meaning, the examples were provided by the teachers in specific situations to help them easily find out its meaning. In this situation, the teacher demonstrated a new concept for students to acquire new information.

T: *How about 'alternative'. What does it mean?*

Ss: *I don't know.*

T: *I have one example like that 'The car is too expensive so we are trying to find a cheaper alternative'.*

Ss: *It means 'a change'.*

T: *Excellent! You will get a reward point.*

The students were divided into several groups, each group consisted of three or four students. Then, the students were required to answer five questions in task one. The teacher then guided and controlled the group discussion. After discussing, the students were asked to answer questions. One or more representatives of the group gave answers to the questions. Other students were asked to think of an alternative view of their friends' answers. For example:

T: *You will work in a group of five to read the passage again and answer five questions in task one. You have five minutes. After five minutes, I will call anyone to report your answer. Is it clear?*

Ss: *Yes.*

T: *Why do people develop and use alternative sources of energy?*

Ss: *Because it is limited.*

T: *Why do you think so?*

Ss: *I read in the text, line two, paragraph three.*

T: *Good, thank you. Which energy has the most potential in the future?*

Ss: *Water energy.*

T: *Why do you choose water energy?*

Ss: *Because it is clean.*

T: *Good! Other ideas?*

Ss: *Solar energy because it is unlimited.*

T: *Good idea!*

From the dialogue above, the students were called to support their answers after the discussion. In this situation, they were asked open-ended questions to elaborate their answers. The teacher asked “how”, “why” and “what” questions to create opportunities for students to analyse their own thinking. The students received feedback from the teacher during game activities to the end of the lesson.

Scenario 2

The lesson started with a guessing game. At first, the students were asked to guess the names of well-known people. Then, the teacher led the students to recognize the topic to be learnt, namely space conquest.

T: There are some pictures of well-known people. Look at this and guess What's his/ her name? What is he/ she famous for? If you give the correct answer, you will get one reward point. Are you ready?

Ss: Yes, teacher.

T: Now, look at the first picture. Do you know who he is?

Ss: Pham Tuan.

T: That's right. What do you know about him?

Ss: The first Vietnamese.

T: You mean that he was the first Vietnamese to fly into space.

Ss: Right!

T: Excellent! Thank you.

Then, the students were encouraged to identify the meaning of words in order to figure out the main idea of the passage. The students were required to make inferences based on the examples and create new ones. The sample of the student-teacher dialogue is presented below.

T: Tragic? Can you guess it? You will read the last paragraph, line three and four. You see the words 'tragic death, and 'accident'. What does it mean?

Ss: Silent

T: For example: He was killed in a tragic accident at the age of twenty-four.

Ss: It means 'sorrow'

T: Good! Thank you. Who can make a sentence with 'tragic'?

Ss: Yes. Last night, I heard a tragic story about homeless people in remote areas.

T: I like your words! Thank you.

The students were asked to work in groups and find out the main idea of each paragraph. After finishing the discussion, the students were individually asked to present their tasks.

T: Now. Look at the passage. There are five paragraphs, so I will divide our class into five groups with six students. Each group will read one paragraph and find out what the

paragraph refers to? For example, the first paragraph refers to the time when Gagarin lifted off into space. Is it clear? After discussing, each group will present the answer in front of the class. Do you have any questions? You will have four minutes to read it. Let's start.

T: Now, Group one. What does the second paragraph refer to?

Ss: It talks about the view on Earth.

T: How do you know?

Ss: I see the Earth. It's so beautiful.

T: Good!

The students were asked open-ended questions such as "How do you know?", "What do you mean?", "Where is the evidence?" to elaborate on their answers and talk about what they were learning. These types of questions required the students to analyze, explain and reason what they obtained from the text.

T: Question number two. What was the speed of his spacecraft in orbit around the Earth?

Ss: Yes. It was 108 minutes.

T: Where is the evidence?

Ss: The first paragraph, line two.

T: Thanks for your answer. However, your answer is not enough. You can read line three again. Other students, who can help her?

Ss: Yes. It was 17.000.

T: Good! Thank you.

The students were encouraged to find out the relevant information or the evidence in the text to demonstrate their statement. It was clear that the questions made students improve their reading skills in analysing the text delivered by the teacher. The teacher provided the students with corrective feedback when they could not give the correct answers.

4.3 Findings from the Interviews

The interview data show teachers' strategies for incorporating HOTS in reading classes. Six themes identified include playing games, making predictions, modelling, structuring the classroom, asking questions, and giving feedback.

A. Playing Games

When asked about the activities that they implied in reading classes, five participants said that playing games were one of the easiest ways to engage students, capture their attention and enhance their thinking. It is shown in the following extracts.

"I usually start the lesson with small activities such as guessing games, matching, doing quizzes, and answering questions. I often ask students to arrange the pictures based on the content of the story." (Teacher A, interview extract)

"I require students to ask and answer each other based on the pictures or a short video. The purpose of this activity is to help them better understand the lesson's content and create excitement for students to participate in the class." (Teacher B, interview extract)

"I often begin the lesson with a small game to help students review their vocabulary and understand more about the topic." (Teacher C, interview extract)

"I often have students play games such as word square, lucky numbers, matching, guessing games or quizzes. These games must challenge them to enhance their thinking and creativity." (Teacher D, interview extract)

"I often collect short stories for students to find the meaning of the story. Sometimes, I let them watch the news and ask them to summarize it. Students will develop their thinking skills and motivate students to take risks if they often practice doing the quiz." (Teacher E, interview extract)

B. Making Predictions

Six participants noticed that they required students to guess the main idea or the meaning of new words by using pictures, examples, and videos. They believed that making predictions enabled students to figure out what the topic of the reading was and to express what they thought about it. Examples of those views are presented below.

"To help students guess the meaning of new words, I first ask them to find out the keywords in a sentence, then ask divergent questions based on the context of the text." (Teacher A, interview extract)

"I ask students to find the main idea of a passage, guess words' meaning in order to understand the author's intention." (Teacher B, interview extract)

"While teaching vocabulary, I only explain some difficult words. I usually require them to guess the meaning of words or sentences based on the context of the text." (Teacher C, interview extract)

"I ask students to guess the meaning of new words to understand clearly the meaning of the passage, and answer the questions. In addition, I want them to develop their thinking and judgment skills when taking the tests or exams." (Teacher D, interview extract)

"I prepare some pictures with some keywords, then I ask them to guess what will happen next. I will list some vocabulary on the board and ask them to skim the passage and guess the meaning of those words." (Teacher E, interview extract)

"I often encourage students to guess the content of the lesson through pictures, videos, articles, and newspapers. This activity will enhance student's critical thinking because

they must use skills such as reasoning, analysis or creativity to think about their answer.”
(Teacher F, interview extract)

C. Modelling

Four of the six participants reported that giving models or examples in teaching could help low-achieving students to understand the lesson more effectively. They said that if any students struggled with their tasks, the teachers should guide them by demonstrating the best ways to complete the tasks. For instances:

“I often give examples to help students understand more about the concepts in the text so that they can use them in suitable situations. Moreover, the examples can help students come out with more ideas.” (Teacher A, interview extract)

“Some students are struggling to understand the concepts or tasks, so I must explain them by giving examples or asking follow-up questions.” (Teacher D, interview extract)

“If they cannot guess a word’s meaning, I will give them an example or provide a synonym for that word.” (Teacher E, interview extract)

“If the students cannot do it, I will give more illustrative examples or show the pictures to help them practice the tasks or guess the meaning.” (Teacher F, interview extract)

D. Structuring the Classroom

Two of the six interviewees expressed their views on structuring the classroom in reading classes. They believed that it could further develop students’ thinking by exchanging ideas and giving opinions to each other with new things that they received in class.

“I often divide the class into small groups involving high and low-achieving students in the same group. So, they can discuss and help others, which is a useful way to help them expand their vocabulary, develop their thinking ability and be more creative than an individual.” (Teacher A, interview extract)

“I often give the tasks to students and ask them to complete them by discussing them in groups. Working in groups, they can get more ideas and complete the assignments quickly. Each group will take notes and then report the results after finishing the tasks.” (Teacher B, interview extract)

Four out of the six teachers added that group discussion helped each group member exchange, synthesize ideas, explore and discover the meaning of the concepts, evaluate their point of view, and review what they had learned or understood from the text through interaction with other people. For example:

"I require students to practice the tasks such as finding synonyms or antonyms, answering questions, filling in the blanks, and matching. I often divide the class into several small groups to analyse the text, find out the main ideas, evaluate each other and express their own views. (Teacher C, interview extract)

"It is necessary for students to work together because they will get more ideas to support their answers in a short time. It brings them an opportunity to exchange, synthesize ideas from their friends. After discussing, I let them compare their answers with other groups. This provides them a chance to evaluate each other." (Teacher D, interview extract)

"Group discussion helps students to review their prior knowledge, get more ideas to solve the problem quickly. It helps them develop self-assessment ability." (Teacher E, interview extract)

"When working in a group, they will support each other and take responsibility to perform the tasks. Each member will give his or her opinion and defend it. This activity helps them exchange information, learn from each other, review what they have learned or understood from the text." (Teacher F, interview extract)

E. Asking Questions

Four of the six participants contended that questioning from the teachers was to guide students to elaborate and explain their answers. The participants said that the students might imitate their friends' choices if they were not offered a follow-up question. The following extracts illustrate their views.

"Asking questions is the best way to help students come up with their answer and help them explore the information given from the text. For the good student, I often encourage them to ask themselves what, why, and how questions." (Teacher A, interview extract)

"I do not give the answer, I often ask the questions: Why do you think so? Do you have any evidence for your answer?" (Teacher B, interview extract)

"I often ask them to elaborate on their answers. I will ask some provoking questions. For example, Which information do you get from the text? Why do you think so? Can you explain more? How do you know?" (Teacher C, interview extract)

"After students' responses, I often ask them to explain or ask them to find evidence for their answers. I ask: What do you mean? Why do you think it is true? What is your opinion? to encourage them to support more details for their answer." (Teacher D, interview extract)

Two participants said that they posed open-ended questions before the lesson to help them brainstorm the ideas related to the topic.

"I ask a few questions related to the content of the text. For instance, can you list the names of historical sites in Vietnam? Is Van Mieu-Quoc Tu Giam a historical site? What do you know about this? The purpose of these questions is to help them get general knowledge about historical places." (Teacher E, interview extract)

"I often ask open-ended questions to check their understanding. For example, what do you know about wedding customs in Vietnam? What makes the difference between Vietnamese and Japanese wedding culture? To present their views, they must connect their prior knowledge and new information in the text." (Teacher F, interview extract)

F. Giving Feedback

Two out of the six participants mentioned that providing feedback was likely to invite students to review and improve their understanding of the material that they had learned.

"I advise my students to revise the content of the text if they give incorrect answers. I sometimes ask them to listen to their friends' answers, then compare with their own." (Teacher A, interview extract)

"To those who answer incorrectly, I just say: thank you for your answer; however, you need to read more, for example." (Teacher B, interview extract)

Two teachers said that they motivated students by praising them when the students could answer or finish the tasks from the teachers. She reported:

"If they give correct answers, I will praise them by giving a gift or award points. If the answer is not correct, I will call others to support their friend's answer. I rarely comment that your answer is wrong." (Teacher C, interview extract)

"We are not too harsh with students who cannot find out the answer. It will be better if we give them a chance to express what they are thinking." (Teacher D, interview extract)

Two teachers mentioned that giving positive feedback could motivate students to become more active in learning. For example:

"We do not criticize them. If they give incorrect answers, we will suggest some keywords so that they can find the answer or ask them to read the passage carefully. Although their answer is incorrect, they have worked so hard." (Teacher E, interview extract)

"If they give correct answers, I will give bonus points for them to be more motivated. Otherwise, if their answers are incorrect, I often advise them to read the passage again, stress on the keywords and paraphrase the questions to help them find out the answer." (Teacher F, interview extract)

5. Discussion

This section discusses the findings of the study in relation to the relevant studies to answer the research question.

The findings from observations and semi-structured interviews indicate that the participating teachers prepared a small game at the beginning of the class such as guessing, quizzes, or word squares. The students were asked to find a word that is suitable for a given picture or card. This finding is in line with a study by Ansori and his colleagues (2019) who found that games were used to promote HOTS and yield positive outcomes. Thus, this strategy is likely for them to think more about the topic, generate more ideas, and promote their curiosity.

Making predictions was the second strategy used by the teachers. The students were asked to predict the meaning by considering the meaning of the word having a similar form. This strategy is in accordance with the strategy which is proposed by Rusdiana and Hikmat (2020). These authors indicated that making predictions could allow students to figure out what the topic of the reading was, and to express what they thought about it. Making predictions is a very useful strategy since it could help students explore the topic before they read and thus understand it better.

The findings from the observations and semi-structured interviews show that the teachers used models or examples to help them the link between what they already knew and new information they were encountering. This finding is different from previous studies conducted by Ansori and his colleagues (2019) and Rusdiana and Hikmat (2020) who found that teachers asked students closed and open-ended questions about their experiences related to the topic without giving models. This strategy could help the students to become critical thinkers and be more independent thinking.

The teachers used the discussion to train students to carry out text analysis. After students finish working on the assignments given by the teachers, the students must present their work. This finding is consistent with prior studies conducted by Ansori and his colleagues (2019) and Fitriani and his colleagues (2021). These authors found that there were many benefits from analysing, discussing and exploring their ideas, and questions and gaining feedback from their peers. Thus, teachers can use this strategy to help students be more active, and more confident and increase their motivation in joining the class.

The students were asked 'Why?', 'Could you give evidence to support your answer?' questions to demonstrate their answers. These questions expected the students could analyze, argue and give their opinion about the topic they had been discussing. This finding is in line with prior studies by several scholars (e.g., Ansori et al., 2019; Fitriani et al., 2021; Rusdiana & Hikmat, 2020). These authors contend that by addressing questions to students, the teacher could dig into more of students' ideas and invite them to refine their thinking. Asking questions is essential for checking students' understanding and keeping them engaged with the tasks.

The findings from semi-structured interviews show that the teachers motivated students to think critically by asking questions about the material that had been studied.

If the students gave correct answers, they would receive points or gifts from the teachers. This finding is in line with a study by Fitriani and his colleagues (2021) who found that the teacher used the remaining time to give feedback and assess student learning through which students could review, refine and improve their understanding of the material.

6. Conclusions

This research provides insights into teachers' strategies for applying HOTS in reading classes. The findings of this research indicate that the strategies for incorporating HOTS in reading classes were playing games, making predictions, modelling, structuring the classroom, asking questions, and giving feedback.

Pedagogical implications for teachers and students are made from the findings of this current study. For teachers, they should pay more attention to developing students' HOTS by choosing the appropriate strategies and creating activities that meet students' needs. Additionally, the findings serve as a reference for teachers to plan a coherent curriculum so that students could learn and enhance their thinking skills in solving HOTS questions.

Conflict of Interest Statement

The authors declare no conflicts of interest.

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