

Higher-Order Thinking Skills (HOTS)-based literacy media: An innovative learning strategy to promote the secondary students' social awareness

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ABSTRACT: In this high-technology era, students are increasingly inclined to use digital services such as Facebook, Instagram, and YouTube. Unsurprisingly, most of them are becoming more addicted to using their digital devices. Unfortunately, the accessed contents are not always suitable and reliable for their needs and ages. Therefore, they absorb all information directly without filtering the messages. This study scrutinizes the implementation of Higher-Order Thinking Skills (HOTS)-based media literacy to promote the critical social awareness of junior high school students in an EFL classroom. A case study was employed as a research design involving one eighth-grader class and one EFL teacher as participants. The data were gathered via classroom observations, interviews with the teacher and the students, and document analysis. The data were then analyzed qualitatively by referring to the principles of teaching media literacy, Higher-Order Thinking Skills, and social awareness. The findings of this study revealed that the teacher applied some principles in teaching media literacy, namely introducing general concepts, making generalizations, analyzing information, evaluating the content of information, and drawing a conclusion from the students' actions. These principles consequently promoted the students' critical social awareness, including emotional awareness, self-regulation, empathy, active listening, cooperation, and respect. Considering such benefits, HOTS-based media literacy can be used as an alternative learning strategy to promote the students' critical social awareness in EFL classrooms.

KEYWORDS: critical social awareness; English as a foreign language; Higher-Order Thinking Skills; junior secondary students; media literacy

1. Introduction

Media presence has recently reached all levels of society. As a source of information, media have influenced a wide variety of audiences. People in a mediatized community believe digital technologies and media play critical roles in learning, daily life practices, and well-being (Hobbs, 2010; Rasi et al., 2021). It is a fact that media significantly impact society. It reflects the reality of society and how it works (Singh and Pandey, 2017). Technological advancements allow people to expand their thoughts and facilitate the dissemination of information to a larger audience.

However, notwithstanding its perceived benefits, media have several negative impacts, especially in

educational contexts. Media are frequently seen as sources of problems for adolescent students in their cognitive, psychomotor, and affective development (Hobbs and Frost, 2003). It can be identified in today's young teenagers' everyday attitudes and manners. Most teenagers are unconcerned about social problems in their immediate surroundings, so they do not actively participate in society life (Livingstone and Brake, 2010; Marten and Hobbs, 2015; Thoman and Jolls, 2004). In addition, their addiction to media, including Instagram, Twitter, Facebook, YouTube, and other television programs can negatively influence their behavior. They spend most of their time accessing these media and neglect their primary responsibilities as students (Marten and Hobbs, 2015). Even worse, the mistaken use of media could dangerously lead them to pornography, drug abuse, free sex, and other forms of crime (Kujur and Singh, 2017; Rogow, 2004).

Teachers, scholars, and stakeholders have actually recognized these issues. However, few solutions have been developed for media literacy learning strategies for adolescent students (Moeller et al., 2012). It is due to several factors impeding media literacy teaching, such as teachers' unfeasible workloads that require them to conduct burdensome administrative matters; teachers' lack of knowledge of media literacy teaching; a lack of awareness among teachers, policymakers, and parents about integrating media literacy in learning strategies and assessments (Brindley and Riga, 2009; Calvani et al., 2012).

Considering these issues, it is clear that teachers, mainly English as a Foreign Language (EFL) teachers, play an essential role in guiding their students. Teachers with sufficient media literacy experience will direct their students to use the media positively. They can employ academic and social learning sources to hone the students' literacy skills and self-awareness. In this context, self-awareness refers to controlling, selecting, utilizing, analyzing, evaluating, and determining appropriate attitudes to find information through the media (Moeller et al., 2012). It implies that EFL teachers should teach media literacy to promote the student's social awareness and positive personalities. It is consistent with 21st-century education that demands students to have positive personalities and Higher-Order Thinking Skills (HOTS). Students are expected to read, understand, evaluate, analyze, and produce printed and electronic information wisely and skillfully (Thamrin and Agustin, 2019).

As supported by Hobbs and Frost (2003), few studies have investigated the impacts of teaching media literacy on students' cognitive skills, attitudes, and behaviors. However, it is still highly necessary to conduct empirical studies in schools on the impacts of media literacy on students' knowledge, attitudes, and academic achievements. Therefore, this study investigates the implementation of Higher-Order Thinking Skills (HOTS)-based media literacy to enhance junior high school students' social awareness, particularly in using social media. This study can provide insightful guidance on developing the student's critical social awareness and HOTS in using technology-based media. It also prepares students for the high-competition era and the Industrial Revolution 4.0 and Society 5.0.

2. Literature review

2.1. Teaching media literacy skills in English as a foreign language (EFL) classroom

Media literacy is commonly defined as skills that promote critical engagement with media messages. Hobbs and Jensen (2009) explained that media literacy is an active investigation and critical thinking about received and created messages. Media literacy is interrelated with Higher-Order Thinking Skills. O'Neill (2010) stated that children are expected to overcome the risks of online activities due to a lack of institutional support for trusted sources of information. Thus, media literacy learning should empower people to think critically and engage meaningfully to contribute positively to their communities (Cannon et al., 2022; Hobbs and McGee, 2014; Hobbs and Moore, 2013). Media literacy is a diverse, flexible, and

empowering response (Lemish, 2015). Media literacy education should balance the principle of protectionism since it is one of the necessary competencies for citizens to contribute to the development of a nation (Buckingham, 2013; Mihailidis and Thevenin, 2013).

In terms of teaching media literacy and Higher-Order Thinking Skills in English as a Foreign Language (EFL) classroom, three main goals should be well considered by the teachers (Yeh and Swinehart, 2020), namely: (1) develop a variety of language skills; (2) describe aspects of the target culture of the community; (3) encourage students to discuss the current issues raised in the article. Students are expected to recognize specific media operations for learning media literacy skills in EFL classrooms by engaging in a variety of activities, including analyzing the rhetoric and content of the media (Quinlisk, 2003). By inviting students to analyze rhetoric and content, they could explain how the media highlights socioeconomic, social status, gender, and ethnicity issues (Holilulloh and Youssef, 2020).

Specifically, to promote media literacy skills in EFL classrooms, there are some key principles to be considered as proposed by Kellner and Share (2019), namely social constructivism, languages/semiotics, audience/positionality, politics of representation, production/institutions, and social and environmental justice. These key principles are summarized in **Table 1** below:

Table 1. Key principles of teaching media literacy skills in EFL classrooms.

Conceptual understandings	Questions
1. Social constructivism All information is con-constructed by individuals and/or groups of people who make choices within social contexts.	Who are all the possible people who made choices that helped create this text?
2. Languages/semiotics Each medium has its language with specific grammar and semantics.	How was this text constructed and delivered/accessed?
3. Audience/positionality Depending on multiple contextual factors, individuals and groups understand media messages similarly and/or differently.	How could this text be understood differently?
4. Politics of representation Media messages and the medium through which they travel always have a bias and support and/or challenge dominant hierarchies of power, privilege, and pleasure.	What values, points of view, and ideologies are represented or missing from this text or influenced by the medium?
5. Production/institutions All media texts have a purpose (often commercial or governmental) shaped by the creators and/or systems within which they operate.	Why was this text created and/or shared?
6. Social and environmental justice Media culture is a struggle that perpetuates or challenges positive and/or negative ideas about people, groups, and issues. It is never neutral.	Who does this text advantage and/or disadvantage?

2.2. Higher-Order Thinking Skills (HOTS) in EFL learning

Higher-Order Thinking Skills (HOTS) refer to reasoning, questioning, searching, and discovering new information by connecting to previous experiences and prior knowledge (Salmon, 2010). HOTS in education involve complex thinking beyond ordinary thinking processes. As a strategy to train critical thinking with integrated knowledge, several skills such as analyzing, evaluating, and developing innovations have become a global educational issue in the 21st century (Elder and Paul, 2008). Abosalem (2016) mentioned that Higher-Order Thinking Skills are developed from Lower-Order Thinking Skills such as remembering and understanding information by involving the students' prior knowledge and experience. To develop and apply these skills in real life, schools should provide appropriate learning strategies and environments for students (Abosalem, 2016).

According to Lai (2011), such skills are part of the evaluation process to solve a specific problem and produce creative and innovative thinking. Some scholars described that there are two approaches that teachers should follow in teaching HOTS, namely the infusion approach and the subject-specific teaching approach. Teachers could use the infusion approach to integrate with the learning topics delivered. Students are indirectly encouraged to think critically during the learning process. Meanwhile, in a subject-specific teaching approach, thinking skills are introduced to specific learning topics. The target levels of thinking are directly explained to students.

Furthermore, Collins (2014) explained that to possess Higher-Order Thinking Skills (HOTS)-based media literacy, students should be able to assess the credibility of a source, identify assumptions, generalize biased information, identify connotations of language use, understand the purpose of spoken and written texts, identify audiences, and make critical judgments about the purpose of a text. Through these skills, students may be invited to discuss an issue in small or large groups and then attempt to resolve the issue using analytical and evaluative thinking (Yen and Halili, 2015; Collins, 2014).

During the learning process, teachers should focus on the type of media and the content of the information. In addition, teachers should allow students to use certain strategies as a manifestation of their thinking skills and determine whether the solutions are addressed to social justice. Thus, students can be technologically proficient and wiser in using their thinking skills to solve problems.

2.3. Critical social awareness of adolescents

Many educational institutions have recently observed problematic situations in social reality. Verbal and physical aggression are commonly found in today's social life. It particularly happens in poor communities with economic, family, and dysfunctional crises and violence problems (Selman, 2003). In this regard, teachers from different areas of learning should not ignore the social aspects. They need to participate in addressing such challenges as part of the curriculum by analyzing the social problems. For instance, EFL teachers can be more sensitive to seeing language literacy as a social practice (Lerner et al., 2012). As explained by Garg and Lerner (2013), the purpose of language learning is to make language a means to explore the students' social context, then reflected in public responsibility.

Social awareness is generally related to a person's understanding, behavior, and commitment to a community (Pérez and Alexánder, 2013). However, this conception differs among individuals, particularly in community groups of some countries. Durlak et al. (2015) believes that social problems can be overcome if people are taught to think and find solutions to their problems. Social awareness is the human ability to recognize the problems faced by individuals, society, or communities in various contexts, including politics, religion, art, and philosophy (Pérez and Alexánder, 2013). This concept proposes that social difficulties occur when individuals are unaware of their problems, duties, and functions as community members. Other influential factors, such as cultures and ideologies, frequently accompany these difficulties.

Furthermore, Csóti (2009) as cited in Pérez and Alexánder (2013), claim that social awareness is not solely the responsibility of teachers. Thus, students should take responsibility for increasing their social awareness and contributing to their surroundings. They need to see critical phenomena to analyze and evaluate all actions taken and the consequences of those actions. As a result, teachers must engage students in social activities and expose them to situations that encourage them to confront and analyze social situations individually and in groups. Therefore, to address such issues and to fill the lacuna on the use of HOTS-based media to enhance the student's social awareness, this study aims at scrutinizing the implementation of Higher-Order Thinking Skills (HOTS)-based literacy media to promote the junior high

school student's social awareness.

3. Research method

3.1. Research design

To comprehensively describe a complex phenomenon (Algozzine and Hancock, 2017), this study employed a qualitative approach with a case study research design. This study analyzed, described, and interpreted data gathered in an EFL classroom focusing on the teacher's strategies to promote the student's social awareness. The primary goal of this inquiry-based study was to explore a specific phenomenon from a direct description from experienced respondents. The data were gathered from 32 seventh-grade students of a junior high school and an English teacher who had experience teaching technology-integrated language classrooms, particularly in media literacy. By involving the teacher, the study could delve deeper into how information, media, and technology were used in EFL classrooms to promote students' Higher-Order Thinking Skills, literacy skills, and critical social awareness.

Second, a case study employed the researchers as the primary instrument to collect data (Hamilton and Corbett-Whittier, 2012). Since this study investigated the implementation of HOTS-based media literacy to promote the students' critical social awareness, the researchers engaged directly with the research site and participants to observe, interview, and analyze the implementation of learning strategies. The researchers thoroughly observed the classroom situation and put all details captured during the instructional process. Hamilton and Corbett-Whittier (2012) further mentioned that a case study should be done comprehensively through an in-depth exploration of the phenomena. In this study, the data focused solely on the implementation of HOTS-based learning strategies to promote the students' critical social awareness. As a limitation, only specific participants were involved in this case study. The data were garnered from teachers who had sufficient experience in teaching media literacy skills. It aimed to dive deeper and collect detailed data on the implementation of HOTS-based media literacy, particularly how the learning strategies could promote the students' critical awareness.

3.2. Research participants and data collection

This study was conducted in one public junior high school in Bandung, West Java, Indonesia. There was a class of seventh-grade students and one English teacher involved as research participants. The class consisted of 32 students and a teacher named Mr. Ahmad (pseudonym), who had experience teaching ICT-integrated English for over ten years. The students involved in this research were classified as young adolescents from 13 to 14 years old. According to Pinter (2017), "early adolescent students" refers to children between the ages of ten to fifteen who have reached *The Concrete Operational Stage*, which allows them to think logically. Furthermore, they proceeded to *The Formal Operational Stage*, where they could think abstractly and process specific information. As a result, the students of that age could comprehend the information displayed in media holistically and critically.

The data were obtained via classroom observations and interviews with the teacher and the students. In addition, the researcher also gathered the data from document analysis in the form of lesson plans, learning media and sources, and assessment blueprints. Following Malik and Hamied (2014), the main reason for selecting classroom observation as a research instrument was that during research activities, the researchers could observe and take note of all behaviors, actions, and communication patterns. In this study, systemic observations were administered using an observation guide. It consisted of a list of activities that could be observed, serving as a portrait of the objects' actions, behavior, and communication patterns. Hence, the classroom observations focused on students' responses to

information gained from some media and sources, particularly social media. During the learning activities, all behavior, thinking patterns, speech, and other sources of information related to the use of social media were observed to see how the students responded to the information. The observations also investigated how critical social awareness was promoted through some activities covered in the HOTS-based media literacy strategy.

The interviews determined what the teacher and the students perceived about HOTS-based media literacy. The interviews were also purposed to delve into the students' opinions of the learning activities. According to Cresswell (2007), interviews may provide rich information about research participants, especially when they respond to situations that were not previously gained through observations. Semi-structured interviews were used in this study to make students feel comfortable in answering questions without concealing other important information. Robinson (2014) mentioned that such an interview approach was less structured than other types of interviews. The findings of the interviews were expected to support the results of the classroom observations.

Document analysis was done to complete the data gathered from the classroom observations and interviews. Documents analysis was performed by analyzing and evaluating teacher-made lesson plans, learning media and sources (types of social media used), students' written works, and assessment blueprints used by the teacher to assess the student's learning outcomes. Those instruments were used to scrutinize how students' critical social awareness was influenced by information gained from social media and the extent to which students could think critically about the information accessed from the learning strategy.

3.3. Data analysis

The data from the three research instruments were then analyzed qualitatively using a qualitative data analysis procedure. Grbich (2012) explains that the qualitative data analysis procedure is better suited for elaborately presenting the data. In line with this idea, Hamilton and Corbett-Whittier (2012) underline that one of the characteristics of case study research is that it is qualitative and requires an elaborative description of the data obtained. Therefore, qualitative data analysis was considered ideal for this study.

In detail, the data gathered from the classroom observations and interviews were divided into several steps before proceeding to the analysis process. As suggested by Grbich (2012), there are several steps in analyzing data gained from classroom observations and interviews, namely data reduction, data visualization, and concluding the data. Once the data reduction had finished, the data were edited and divided into some categories before the summary. It was to reduce the data without removing important information from the collected data (Grbich, 2012; Malik and Hamied, 2014). Following the data reduction process, the next step was displaying the data by arranging, comparing, and classifying them based on the relevant information. The final step of this data analysis procedure was drawing conclusions based on the analysis results. These conclusions could eventually be described in the research report.

4. Results and discussion

4.1. The implementation of Higher-Order Thinking Skills (HOTS)-based media literacy strategy in an EFL junior secondary classroom

Based on the findings of the three research instruments, namely classroom observations, interviews with the teacher and the students, and document analysis, there were several steps in implementing

Higher-Order Thinking Skills (HOTS)-based media literacy learning strategy to promote the students' critical social awareness. These steps included introducing general concepts, making generalizations, analyzing information, evaluating information content, and drawing conclusions from students' actions. Each step referred to the principles of media literacy teaching and Higher-Order Thinking Skills, such as establishing digital information connections, thinking from different perspectives, including good media examples, focusing on representations, and teaching through a civic lens. These principles require the students to think at a higher level, including applying, analyzing, evaluating, and drawing conclusions based on the information gathered. This learning process was similar to the idea of Collins (2014) that, through HOTS-based media literacy, students could assess a source's credibility, understand the text's purpose, and make a critical judgment about the purpose. The following figure summarizes the findings of the study on the implementation of HOTS-based media literacy learning to promote the students' critical social awareness:

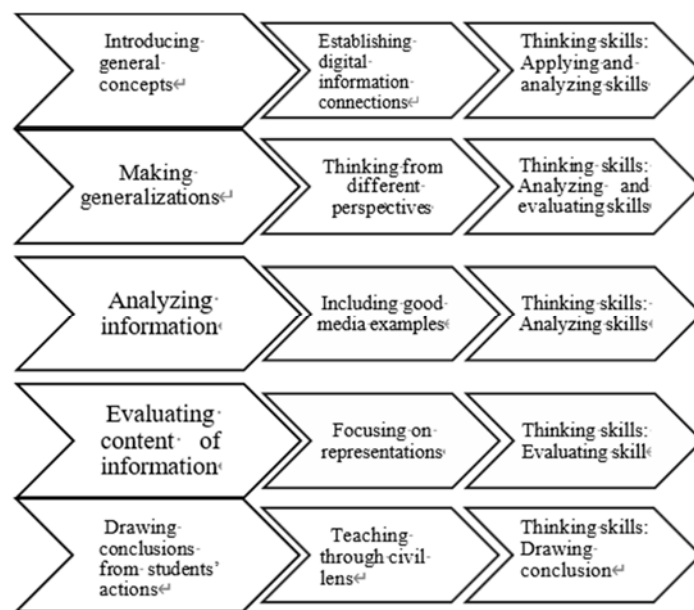


Figure 1. The implementation of HOTS-based media literacy strategy.

In the first stage, the teacher conducted a warm-up activity before engaging the students to explore deeper information from the media accessed. At this stage, Mr. Ahmad gave some questions related to the use of social media by the students, such as how long they accessed social media, why they needed to access social media, and how social media affected their lives. These questions required the students to connect their experiences to the learning materials. As stated by Abosalem (2016), the transition from Lower-Order Thinking Skills to Higher-Order Thinking Skills requires students to connect their prior knowledge and previous experiences so they can construct new information.

The data gained from the classroom observations showed that the students responded to the teacher's questions variously. There were 25 out of 30 students in the classroom who acknowledged having social media accounts and accessed them for more than 12 h a day. The students perceived that social media might greatly impact their lives positively and negatively. Positively, social media connected them virtually with relatives and gave them easy access to the most current information. Negatively, social media exposed the students to violence and rudeness in virtual communication, such as using derogatory language and bullying, which was detrimental.

Mr. Ahmad addressed the students' responses by asking them to contextualize how the media related

to one another and how the information in the media was created. In this case, the teacher involved the students to think and discuss the possible parties who made the information. It aimed to accommodate them to construct information as a social process rather than merely accepting the text as a neutral source of information. The data from the classroom observations showed that the students performed applying and analyzing skills as they brought their personal experiences into the problems raised in the media. As an example, one of the students explained about the COVID-19 vaccine. According to the student, most people did not want to get vaccinated due to a lack of comprehensive understanding of their religion's teachings. Furthermore, the student mentioned that his neighbors came from lower educational levels, so they did not understand thoroughly how vaccines worked and how religion regulated them to maintain individual health. The student described an experience that could help him apply what was happening in the real and virtual worlds. He further claimed that the text was constructed by certain parties to persuade others not to get the vaccine, and the target audiences were people with lower educational levels. The following are detailed excerpts from the interviews with the student:

"In my opinion, the news is addressed to people who got lower secondary educational levels. They cannot understand what is being conveyed so they are easily influenced without having to think more about what is happening in the news."

From the first stage, Mr. Ahmad recognized that some students could connect digital information to real-world experiences they encountered daily. This digital connection could assist the students in thinking at higher levels, such as applying and analyzing information and connecting it with prior knowledge and experiences.

The teacher then implemented the second stage, making generalizations through thinking from different perspectives. The teacher implemented this second stage by providing several pictures from Instagram screenshots. The picture depicted a man who was mad at another man for littering. It was also complemented by the caption "*Getting Angry for Doing Littering, This Man is Hunted by the City Government*". The teacher believed using pictures was very effective for making generalizations and inviting the students to think from different perspectives before analyzing and evaluating the content of the delivered text. As stated by Yen and Halili (2015), the employment of multimodal texts helps the students engage in learning because it stimulates them to understand, evaluate, analyze, and make meaning. To engage the students, Mr. Ahmad invited them to comment on the picture they had seen. The student's responses to the picture indicated the flaws of the littering man. They generally supported the city government in accepting such reprimands. As a follow-up action, the teacher asked how the government treated the guilty person. Some students responded enthusiastically and variedly to his statement. They believed reprimanding should not be done in public, and that posting on social media would humiliate the man rather than serve as a deterrent effect. From this situation, the teacher believed that the students did not have to think universally to make generalizations about the information on social media. Instead, they needed to be directed to think from another point of view. The students should analyze the language used in the title to determine whether there was a tendency to neglect one's position. Through the analysis and evaluation process, the students were expected to not merely receive the information as it was without filtering the information.

After completing the second stage, the teacher moved on to the stage of analyzing information. This stage was completed by displaying an example of good media. Mr. Ahmad stated that the purpose of providing good media was to inform the students that using language and other multimodalities in the media was objective and did not favor one group over another. To realize this, the teacher showed a YouTube video about a fire in a market that prevented some people from returning home on Eid al-Fitr

(the Muslim’s big day). Good media were selected based on the relevance of the contexts familiar to students and their ability to understand the content presented. In the teacher-made lesson plan, the teacher planned to use picture media and video. The video analysis also revealed that the information was free of racism and discrimination issues and delivered in friendly language for students, as indicated by the word choices, pronouns, and illustrations. Thus, it could be concluded that the video was appropriate to be used as learning media.

Furthermore, the teacher explored the roles of the students in actively negotiating meaning. He allowed the students to contribute to the meaning-making process. For instance, the classroom observation results demonstrated that Mr. Ahmad positioned the students as the main actors in the fire incident and asked them to consider how to deal with it. Its goal was to analyze the situation and develop proactive problem-solving steps. Some students were observed to have been able to use their Higher-Order Thinking Skills, particularly in analyzing the causes of the problems presented in the media, and put themselves as victims of the market fire. It was supported by the student’s opinions that they would try to collaborate with other victims to rebuild the market even though it was difficult since they had lost everything. In addition, the other students also played a role as external parties who witnessed the fire incident. They claimed to raise funds to help the victims on the big day, assuming that the funds would be collected faster and bigger since people gathered together. They would likely have strong empathy for the victims. In the interviews, the teacher further claimed that the students had divergent points of view due to their differences in capturing the messages put in the media. The teacher said that the text described severe difficulty and sorrow that the students could feel. Consequently, Mr. Ahmad believed language significantly influenced the students’ behavior and thinking when taking action for justice.

The fourth step implemented by the teacher was evaluating the content of information delivered by the media. This step was manifested by concentrating on the representation process to reveal issues of bias, point of view, ideology, omission, aesthetics, power, privilege, gaps in the contents, and the influence of media on the students’ lives. The teacher expected the students to evaluate the information delivered by one medium against another. According to Mr. Ahmad, this stage was critical in media literacy learning since the students could critically and comprehensively determine the truth of the information. Their position as an audience did not only passively accept information but also actively participate in society.

The teacher brought up the previously discussed COVID-19 vaccination issue to make it through. From this problem, the teacher assigned the students to evaluate the information presented by asking, “*Who created the information and why is it delivered in such a way?*”. The students were asked to work in groups to discuss the issue critically and present it to the classroom. The discussion results are presented in **Table 2** below:

Table 2. Students’ critical discussion results in an issue.

No.	Teacher’s questions	Students’ responses
1	Who created the information?	1. Policymakers 2. Lower levels of education citizens 3. Irresponsible people
2	Why is it delivered in such a way?	1. Low stocks of vaccines and non-transparent data delivery 2. These people wanted to show their existence through a piece of news in the media 3. These people wanted to thwart the government’s vaccine program

From the discussion results presented above, the teacher acclaimed that the students could express the results of their analysis because they focused on the discourse. They found that the media employed persuasive discourse while avoiding involving citizens in the acquisition of vaccines. Specifically, the students discovered textual evidence in the form of sentences highlighting those vaccines seemed

ineffective in reducing the number of COVID-19 cases, requiring the government to re-evaluate the program.

In the final stage, the teacher employed drawing conclusions from the students' actions. Mr. Ahmad assigned the students to solve several cases on different topics, such as juvenile delinquency, unequal distribution of government subsidies, and the rising price of cooking oil, making it difficult for housewives. In the interviews, the teacher underlined that the topical choices and media sources were selected based on his beliefs that these issues happened recently. The topics were also easily found in the student's daily lives. Furthermore, the media selection considered several factors, including the easy-to-understand language shown by the vocabulary and suitability of the illustrations for the student's age. The teacher explained that to accommodate the students in making decisions and taking social justice actions, the ability to understand the contents of the text in writing and other forms was required. Once the students had comprehended the explicit ideas of the text, they would be able to think at higher levels, such as analyzing and evaluating the content of the text and drawing conclusions by connecting them to real-life contexts.

4.2. Students' critical social awareness promoted by the learning model

The model of HOTS-based media literacy learning in an EFL classroom could promote the critical social awareness of junior high school students. Critical social awareness is an empathetic form of students' perspectives on people and phenomena captured through information delivered by digital devices and the internet. As a result, the information could assist them in developing an internal lens of awareness and bringing it to life in more cohesive and positive interactions between individuals and their environment. It is consistent with Dwivedi and Pandey (2013) that the media play constructive roles in society, particularly in raising public awareness and gathering views, information, and attitudes toward specific issues. When the students have access to all forms of media, they go through an information-processing process that affects both cognitive and affective dimensions.

In addition, the findings of this study reveal that the students' critical social awareness is classified into several forms identified from the responses, ideas, and suggestions expressed by the students to the opinions of their colleagues, including emotional awareness, self-regulation, empathy, active listening, cooperation, and respect. Emotional awareness refers to the student's ability to understand someone's feelings from within and how they affect their emotions. Self-regulation is the ability of the students to remain calm and avoid uncontrollable emotional actions when they analyze social situations. To display good self-regulation, of course, students are required to think at a higher level, such as understanding the given situational context, analyzing the situation, and relating it to self-conditions so that they will be able to display the best response (Garg and Lerner, 2013; Lerner et al., 2012). Then, empathy relates to a person's ability to understand the feelings of others and distinguish individual frames of thought from one another. This form of social awareness is considered easier for someone to relate to others because they can understand the rationale behind the actions and feelings of others shown by social media. Active listening entails students carefully listening to others and affirming that they understand the situation in detail rather than in brief and general terms (Pérez and Alexánder, 2013). It can be demonstrated through feedback and solutions to issues or problems faced by others. Cooperative is a form of student cooperation to achieve common goals. In this study, cooperation could be identified from the students' plans to work together in solving the problems or issues they faced and their intentions to create an innovation. Lastly, respect is a form of understanding of human self-esteem. The students who have this form of awareness appreciated and respected other people's choices.

The data from the classroom observation showed that the types of emotional awareness possessed by the students were shown in some expressions and statements as follows:

Table 3. Students' social awareness toward some cases.

No.	Cases gained from the media	Types of students' social awareness	Evidences or utterances
1	Market fire	Emotional awareness	Oh, poor them. They could not celebrate Ied Al Fitr, their clothes were burnt.
-	-	Empathy and active listening	We should sincerely collect funds among friends through digital internet applications and send them to fire victims.
2	Juvenile delinquency (Bullying)	Self-regulation and cooperation	Please do not be like that. They should tell the teachers to solve the problems. We, as friends, could not make any changes without the teachers' help.
-	-	Respect	Although he (the victim) had differences, his friends should not discriminate against him. We never know what is happening to us.

From the table above, some cases presented by the teachers were gained from the media by implementing HOTS-based media literacy as a learning strategy to promote students' critical social awareness. It is due to the exposure provided by the teacher through some levels of critical thinking, starting from analysis to evaluation as an alternative to solving problems they face. However, the findings of the classroom observations and interviews showed that this strategy seemed relatively new for the teachers. They were unfamiliar with applying the strategy to promote the students' critical thinking skills and social awareness. In the analysis stage, the teacher stimulated the students to understand the context of the situation. It aimed to aid the students in connecting the learning topics to experiences they might have experienced or seen previously in their lives.

The teacher seemed familiar with asking questions like *"Have you ever seen this kind of case before? What do you think of that case?"*. The teacher also promoted the evaluating level in presenting the cases through pictures of market fires and open-ended questions to stimulate students to express opinions, suggestions, and empathetic actions in learning. These questions included *"What should they do in this accident? Which one do you think is the safest action to escape from the fire? Do you leave your properties or pick some of them?"*.

However, the highest level of Higher-Order Thinking Skills, creation, did not appear to be clearly identified in the learning process. Since they could not decide on appropriate strategies contextually, the students could not solve the problems. The students claimed that they had never faced a similar problem in their lives. They thought it was a complicated problem, so they were stuck in offering solutions. In addition to the results of the classroom observations, this level of thinking was not found in their statements in the interviews. They did not explain in detail the solutions that might help the victims. The students only briefly mentioned the quick strategies without giving concrete actions to solve the problems, such as reporting to the police and calling the fire department.

Finally, the whole learning process revealed that the teacher had trained the students in nurturing social awareness, although it was still at an early and limited stage. Several factors affected this situation, including HOTS-based learning that was not commonly used, the employment of social media by the teacher that had not yet accommodated teaching materials, and the students struggling to adapt to this learning situation. Therefore, the teacher required some solutions to solve the problems, such as joining

professional development programs and adapting learning materials from various media to familiarize the teacher with integrating technology into English learning.

5. Conclusion

According to the data analysis from the three sources, HOTS-based media literacy is an alternative learning strategy to promote the students' critical social awareness. This learning strategy covered some stages: introducing general concepts, making generalizations, analyzing information, evaluating information content, and drawing conclusions from students' actions. These stages were divided into three learning phases: opening, main activity, and closing.

Regarding Higher-Order Thinking Skills, the teacher gradually applied some principles of HOTS-based learning in different forms including extracting information from pictures, involving students' experiences, and stimulating ideas as solutions to the cases discussed. The students were indirectly exposed to social awareness including emotional awareness, self-regulation, empathy, active listening, cooperation, and respect. As a result, HOTS-based literacy learning is considered a viable learning strategy for increasing the students' critical social awareness.

Author contributions

Conceptualization, SS, HS, and PP; methodology, SS and PP; validation, SS, HS and PP; formal analysis, SS, HS, and PP; investigation, SS and PP; resources, HS and PP; data curation, SS, HS, and PP; writing—original draft preparation, SS; writing—review and editing, SS, HS, and PP; visualization, SS; supervision, SS, HS, and PP; project administration, SS; funding acquisition, SS, HS, and PP. All authors have read and agreed to the published version of the manuscript.

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Conflict of interest

The authors declare that there is no conflict of interest in this work.

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Appendix A

Interview guide to the teachers

“Higher-Order Thinking Skills (HOTS)-based literacy media: An innovative learning strategy to promote secondary students’ social awareness”

Day/date of interview:

Time:

Interviewer’s name (initial):

Objectives:

The objective of this interview is to gather qualitative data on the effectiveness of the Higher-Order Thinking Skills (HOTS)-based literacy media learning strategy in promoting social awareness among secondary students.

- (1) Can you briefly describe your experience and background as an English teacher?
- (2) What is your understanding of Higher-Order Thinking Skills (HOTS) in the context of English language education?
- (3) Are you familiar with the concept of literacy media in teaching English? If so, could you provide examples of literacy media that you have used in your teaching?
- (4) Have you ever implemented a learning strategy that specifically focuses on promoting social awareness among secondary students? If yes, please describe the strategy.
- (5) Have you heard about the HOTS-based literacy media learning strategy to promote social awareness? If so, what is your understanding of this strategy?
- (6) What are your thoughts on using a HOTS-based literacy media learning strategy to promote social awareness among secondary students?
- (7) In your opinion, how can Higher-Order Thinking Skills be integrated into English language teaching to foster social awareness?
- (8) Based on your teaching experience, what are some potential benefits of incorporating literacy media into English lessons for promoting social awareness?
- (9) What challenges or barriers do you anticipate when implementing a HOTS-based literacy media strategy in the classroom to promote social awareness?
- (10) How do you envision assessing the development of social awareness among students using the HOTS-based literacy media strategy? What assessment methods or tools would you consider?
- (11) Can you share any examples or success stories from your teaching experience that relate to promoting social awareness among secondary students?
- (12) Are there any specific resources, professional development opportunities, or support that you would need to effectively implement the HOTS-based literacy media strategy to promote social awareness?

Appendix B

Interview guide to the students

“Higher-Order Thinking Skills (HOTS)-based literacy media: An innovative learning strategy to promote secondary students’ social awareness”

Day/date of interview:

Time:

Interviewer’s name (initial):

Objectives:

The objective of this interview is to gather insights and perspectives from secondary students regarding their understanding, awareness, and familiarity with activities or strategies that promote social awareness in EFL classrooms.

- (1) Can you briefly introduce yourself, including your grade level and your experiences with English language learning?
- (2) What does social awareness mean to you? How would you define it?
- (3) Have you noticed any activities or strategies in your English classes that focus on promoting social awareness? If so, could you describe them?
- (4) Are you familiar with the concept of Higher-Order Thinking Skills (HOTS) in the context of learning? If yes, can you give examples of HOTS activities you have encountered in your English classes?
- (5) Have you heard about the HOTS-based literacy media learning strategy to promote social awareness? If so, what is your understanding of this strategy?
- (6) How do you think a HOTS-based literacy media strategy can help in promoting social awareness among students like yourself?
- (7) In your opinion, what types of literacy media (such as books, articles, and videos) would be effective in promoting social awareness? Why?
- (8) Have you participated in any specific activities or discussions related to social issues in your English classes? How did these activities contribute to your understanding of social issues?
- (9) Do you think the HOTS-based literacy media strategy has influenced your thinking or understanding of social issues? Can you provide examples or instances where you felt your social awareness developed?
- (10) Have you noticed any changes in your attitudes, behaviors, or relationships with others as a result of participating in activities related to social awareness in your English classes?
- (11) In what ways do you think the HOTS-based literacy media strategy has improved your ability to think critically, analyze information, and evaluate different perspectives?
- (12) How do you feel about engaging in social action or community involvement as part of your English learning experience? Do you think it is important?

Appendix C

Intervention observation guide

“Higher-Order Thinking Skills (HOTS)-based literacy media: An innovative learning strategy to promote secondary students’ social awareness”

Day/date of observation:

Time:

Observer(s) name (initial):

Objectives:

1. To evaluate the implementation of the HOTS-based literacy media learning strategy;
 2. To document the instructional methods used, including lectures, discussions, group activities, multimedia presentations, or online platforms;
 3. To identify the types of literacy media employed, such as books, articles, videos, documentaries, or interactive websites;
 4. To observe the frequency and duration of the intervention sessions;
 5. To record any modifications or adaptations made to the strategy during implementation.
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Observation category	Description
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Implementation of HOTS-based literacy media strategy	
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Instructional methods	
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Types of literacy media employed	
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Frequency and duration of intervention sessions	
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Modifications or adaptations during implementation	
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Appendix D

Higher-Order Thinking Skills observation guide

“Higher-Order Thinking Skills (HOTS)-based literacy media: An innovative learning strategy to promote secondary students’ social awareness”

Day/date of observation:
Time:
Observer(s) name (initial):
Objectives:

1. To observe the students’ application of Higher-Order Thinking Skills;
2. To identify evidence of critical thinking, analysis, evaluation, and synthesis in their responses and discussions;
3. To assess if the students demonstrate creativity, problem-solving skills, and the ability to think independently.

Observation category	Description
Application of Higher-Order Thinking Skills	
Evidence of critical thinking	
Evidence of analysis	
Evidence of evaluation	
Evidence of synthesis	
Evidence of creativity	
Problem-solving skills	
Ability to think independently	

Appendix E

Social awareness development observation guide

“Higher-Order Thinking Skills (HOTS)-based literacy media: An innovative learning strategy to promote secondary students’ social awareness”

Day/date of observation:

Time:

Observer(s) name (initial):

Objectives:

1. To observe changes in the participants’ social awareness throughout the intervention;
 2. To note if the students display a deeper understanding of social issues, empathy, and respect for diverse perspectives;
 3. To assess if the students show an increased willingness to engage in social action or community involvement;
 4. To record specific examples or instances that demonstrate the development of social awareness.
-

Observation category	Description
Changes in social awareness	
Understanding of social issues	
Respect for diverse perspectives	
Willingness to engage in social action	
Community involvement	
Examples/instances of social awareness	
