

EFL TEACHERS' PERCEIVED BENEFITS AND CHALLENGES IN INTEGRATING HIGHER-ORDER THINKING SKILLS IN TEACHING READING: A CASE STUDY

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ABSTRACT

The study about the integration of higher-order thinking skills (HOTS) in English language teaching has mainly focused on HOTS-based test items. Little is known about what teachers perceived about benefits and challenges in its integration. Knowing how teachers perceived benefits and challenges they encountered gives a depiction of its integration in classroom practices. This case study explores EFL teachers perceived benefits and challenges of the integration of HOTS in teaching reading. The study also seeks how teachers solve their challenges. The participants in this study are two experienced EFL teachers from a public senior high school in East Java, Indonesia. The data were collected through questionnaires and semi-structured interviews. The data then were analyzed using interactive model data analysis (Miles, Huberman, & Saldaña, 2014) that included data condensation, data display, and drawing and verifying conclusions. The results of this study have implications for further teachers' professional development related to the integration of HOTS in English language teaching.

KEYWORDS: HOTS, EFL Teachers, Perceived Benefits and Challenges, Teaching Reading

1. INTRODUCTION

The results of the latest PISA study (Program for International Student Assessment) show that the ability of Indonesian students is still relatively low. PISA evaluates the science, reading, and mathematics skills of students in 70 countries (www.oecd.org/pisa/). Students in Indonesia still occupy the tenth lowest position in these three fields. More than that, students in this information age need more than just necessary skills such as reading, science, and mathematics. They need other specific skills in order to survive successfully. Those skills include critical thinking, problem-solving, creativity, innovation, communication, and collaboration (OECD, 2016). Therefore, infusing those skills into educational systems are crucial to do.

In Indonesia, the Curriculum 2013 (K13) has mandated the integration of HOTS into the learning process. It is in line with the goal of the national education system of Indonesia that is to develop students' potential to become a critical, creative, and independent citizen (Sistem Pendidikan Nasional, 2003). Another purpose is also to enhance the quality of learning and improve the quality of learning outcomes. Besides, this curriculum is also one of the means to answer the challenges of 21st-century learning, including critical thinking, creative and innovative, communication skills, collaboration, and confidence (Ariyana et al., 2018).

HOTS is defined variably by experts. These thinking skills occur when someone gains new information and stores it in memory and associates, rearranges, and expands that information to find possible answers in confusing situations (Lewis & Smith, 1993). It also challenges students to interpret, analyze, or manipulate information. HOTS made students not to be able to answer a question or solve a problem through the routine application of previously learned knowledge; they have to interpret, analyze, and manipulate the information (Newmann, 1990). HOTS is also associated with the top three levels of the cognitive domain in Revised Bloom's taxonomy (Anderson & Krathwohl, 2001; Bloom, 1956), namely, analyze, evaluate, and create.

Generally speaking, for many teachers in Indonesia, HOTS is closely related to three top cognitive processes of Revised Bloom's taxonomy. This taxonomy is a framework to classify the statements of what we expect or intend students to learn as a result of instruction (Krathwohl, 2002). It divides the cognitive aspects into six levels, namely Knowledge, Comprehension, Application, Analysis, Synthesis, and Evaluation (Bloom, 1956). Then, Anderson and Krathwohl (2001) revised the taxonomy to Remembering, Understanding, Applying, Analyzing, Evaluating, and Creating. Later, the Ministry of Education and Culture of Indonesia sets them to measure students' knowledge aspect (Kementerian Pendidikan dan Kebudayaan Republik Indonesia, 2016).

It is undeniable that integrating HOTS provide benefits for students. It helps to increase students' motivation and academic achievement (Brookhart, 2010). More than that, HOTS brings a positive impact on students' performance. Heong et al. (2011) state that "HOTS is a useful tool to help students in learning, improving their performance, and reducing their weakness." Besides, students who are trained to think to show a positive impact on the development of their education. Another positive impact is enhancing students' academic achievement. Students with a high level of thinking skills will have high academic performance (Ramos, Dolipas, & Villamor, 2013; Tanujaya, Mumu, & Margono, 2017).

Newmann (1990) also proposed the idea of why higher-order thinking becomes a desirable educational goal. The common rationale is based on three main reasons. Higher-order thinking is necessary for people to participate as responsible, empowered citizens in a democracy. Mastering HOT skills are also essential to contribute as productive workers in a technological society and to have rewarding personal lives, which include managing one's private affairs, continuing to learn, and benefiting from culture.

As the innovation in the Indonesian curriculum, the integration of HOTS in the teaching and learning process was challenging. Teachers play a vital role in the success of their integration. Uncovering their perceived benefits and challenges in integrating HOTS is exciting and essential to explore. Sparapani (2010) mentioned that there are six constraints of integrating thinking skills. The first deals with the schedule. It can be a constraint for teachers since they have to follow the schedule from school rigidly. Also, teaching thinking takes time, such as for doing discussion and interaction. The

second constraint is related to students' attitudes. Some students often avoid tasks that require them to spend more energy.

Consequently, it often impedes the integration of thinking skills. The third constraint deals with the teachers' attitudes. For teachers, integrating thinking skills takes time and energy to prepare the learning activities that genuinely challenge students to think at a higher level. The fourth is about resources. Learning activities that encourage HOTS need a variety of resources that have to be accessible. If they are not accessible, students' interest in the topic would be low, especially for the middle ages. The fifth constraint is the atmosphere in which thinking is to take place. Teachers have the responsibility to provide a stimulating atmosphere for thinking skills in order to integrate thinking skills works effectively. The last constraint deals with the assessment. Teachers know that the assessments could be used to measure students' HOT skills, and they want to implement them. Unfortunately, state or school's policy often inhibits their use and is more likely to use standard forms of assessments.

Some studies have been conducted to reveal the benefits and challenges of integrating thinking skills. Al-Kindi and AL-Mekhlafi (2017) found that EFL teachers in Oman faced some challenges when teaching critical thinking; these are related to the coursebook to extra-curricular activities, class size, and training. Another study conducted by Shafeei et al. (2017), they found that ESL teachers in Malaysia encountered several challenges while employing HOTS questions in their classroom practice. Those challenges are included teachers' knowledge of HOTS, attitudes, and skills in adopting HOTS questions in their lessons and students' attitude. Similarly, the study conducted by Seman, Yusoff, and Embong (2017) also found that primary school teachers, who taught Bahasa Melayu (Malay Language), Mathematics, and Science, in Malaysia, faced some challenges in integrating HOTS in their classroom practices. Some challenges are in the aspects of teachers, teaching and learning preparations and process, and the aspects of students.

Compared to previous studies mentioned earlier, the studies about EFL teachers' perceived benefits and challenges in Indonesia are still scarce. Besides, the research on the challenges and benefits in the integration of HOTS is crucial to do. Therefore, this research aims to investigate EFL teachers' perceived benefits and challenges on the integration of HOTS, specifically in teaching reading. Besides, how teachers solve their challenges is another question to be explored in this research.

2. METHODS

To explore the research problems, the researchers employed a qualitative case study design. This design is suitable for this research since the focus is to study human behavior and the meaning of people's lives in a real-world setting (Yin, 2016). A case study research is also relevant when the research questions seek to explain some contemporary circumstances and require an extensive and in-depth description of some social phenomena (Yin, 2018). This research conducted in a public senior high school in East Java, Indonesia.

The participants in this research were selected purposively. They are Teacher Ana (pseudonym) and Teacher Ani (pseudonym). Teacher Ana is a 37 years old female. She got her bachelor's degree in English Literature. She has been teaching English for 12 years.

Meanwhile, Teacher Ani is 35, a 37 years old female. She got her master's degree in English Education. She has been teaching English for 13 years. Both teachers taught in the same public senior high school in East Java, Indonesia. Besides, both of them have participated in training on the integration of HOTS in the teaching and learning process.

The data were collected through questionnaires and semi-structured interviews. The questions in the questionnaire were in the form of open-ended questions. The researchers provided several lists of benefits and challenges that teachers must choose. The lists resulted from a review of several previous studies. Besides, researchers also asked teachers to fill in open-ended questions about the challenges or other benefits they encountered when integrating HOTS in their classroom practices. The researcher also asked open-ended questions about how they deal with the problem. The data from the interview were recorded with the participants' permission. Then, to validate the findings, the researchers used data triangulation and member checking.

The data then analyzed using interactive model data analysis (Miles, Huberman, & Saldaña, 2014). The analysis process begins with data collection, data condensation, data display, and drawing and verifying conclusions. Having done collecting the data, the researchers selected, simplified, and transforming the data revealed in the questionnaires and interviews. The next step is that the researchers display the data in an organized and understandable way so that it can facilitate the researchers to draw temporary conclusions. The last process is drawing and verifying conclusions. In this step, the researchers interpret the findings by giving explanations, causal flows, and propositions.

3. FINDINGS

This section provides the results of the data obtained from the questionnaire and interview. The data are displayed using tables, words, and sentences.

3.1 Teachers Perceived Benefits in Integrating HOTS in Teaching Reading

Table 1. Teachers’ perceived benefits in integrating HOTS

The Benefits of HOTS	Teacher Ana	Teacher Ani
Enhancing students’ academic achievement	√	√
Improving students’ academic achievement and motivation	√	√
Enhancing students’ analyzing skills	√	√
Improving students’ critical thinking skills	√	√
Improving students’ creative thinking skills	√	√
Helping students to become productive citizens	√	√
Preparing students to be ready to compete in the technological era	√	√
Preparing students to become individuals who have the willingness to continue to learn	√	√
Other: (If any, please specify)	×	×

[√ = Yes, × = No]

The results of questionnaires showed that both participants believed that HOTS could improve students’ academic achievement and motivation. Besides, it enhances their analyzing skills, improves their critical and creative thinking skills, and help them to become productive citizens. Also, HOTS prepare them to be ready to compete in the technological era and prepare them to become individuals who always have the willingness to continue to learn. In table 1 showed that both teachers did not provide additional information regarding the benefits they felt when integrating HOTS in their classroom practices.

In the interview, both teachers also stated that integrating HOTS, especially in teaching reading, is essential. According to Teacher Ana, students in this century must master reading skills well because several tests such as UNBK (computer-based national exams) and TOEFL tests have already used the type of HOTS-questions. Thus, the integration of HOTS is beneficial for students so that they cannot only merely read, but also can analyze and even do their work. Below is the transcript of Teacher Ana’s interview:

“For students, HOTS is very important. When talking about the concept of English learning itself, reading is one of the skills that are as important as the other skills. It is also beneficial in their real-life; it is clear that students are required to master reading skills very well. The most obvious thing is the existence of UNBK test, the existence of SBMPTN test, even TOEFL test, or texts about advertising, pamphlets, job vacancies where our students have to really master

it, not only merely read, but also have to be able to analyze and in the end they are able to create their work (I.01/TA)."

Similarly, Teacher Ani said that integrating HOTS in reading is important. For her, by integrating HOTS in her classroom, students will be more open-minded, have better reasoning skills, and capturing information more easily. She stated that:

"It is important, very important. Why is that, reading is a window of the world. So, students who read a lot usually have either reasoning skills or getting and capturing information that they receive faster than others. They also think more broadly. For example, if something happens like this, they will not be directly narrow-minded, but they will first relate it to the things they read, this, and so on, so they can be more open-minded (I.01/TA)."

For participants, they agreed that HOTS could improve students' achievement and motivation in learning English, especially reading. Teacher Ana mentioned that standardization of existing tests is already using HOTS-based questions. Automatically, if students are taught using HOTS, they will be able to solve HOTS-based questions given at the end of learning and will indirectly affect their learning achievement. Also, HOTS can increase student motivation, but it depends on each student's characteristics, as she stated below.

"Of course, yes, the problem, as I said yesterday, was that the standardization of the test at the end of learning, as the ending of the learning process for three years, was the evaluation based on HOTS. One of the indicators of assessment is that children can complete tests where competencies and questions-items are based on HOTS, higher-order thinking skills (I.02/TA)."

"I think there is still a correlation, although it might not be optimal for some of our students with varying circumstances... (I.02/TA)."

Teacher Ani had a similar response that HOTS could increase students' learning motivation and achievement. However, according to her, it was conditional. That depends on the ability of students. HOTS will further increase students' motivation and achievement when used on students who already have an excellent understanding of English skills. She mentioned that:

"Well, it depends on the students, if in my opinion it actually can, it is important to apply, but for certain students whose level of understanding of English is still very lacking, if they are asked to think of HOTS, the process is rather long. It is different from students who already have good English skills, so suppose they are given a monotonous text, the challenges do not exist. With the integration of HOTS, their motivation will be more motivated; their achievements will increase if we use the HOTS learning model (I.01/TA)."

The participants also agreed that HOTS gave benefits to students in their daily life. According to Teacher Ana, HOTS is useful for students as the next generation of the nation. Integrating HOTS in the teaching and learning process will teach students to think critically about what is happening around them. She stated that:

"It is beneficial because their duties and obligations as the next generation of the nation automatically they must be critical of what is happening. How can they be critical if they are not accustomed to judging something, conveying, or even creating something in their version (I.02/TA)."

For Teacher Ani, in daily life, HOTS is useful for students to improve their reasoning and thinking skills. As she stated below:

"It is useful, as I said earlier, for example, a student who reads a lot will have better reasoning abilities than his friends who do not like to read. So, he can better his reasoning skills, his thinking skills (I.01/TA)."

3.2 Teachers Perceived Challenges in Integrating HOTS in Teaching Reading

The result of questionnaires revealed that teachers encountered some challenges regarding the integration of HOTS in teaching reading. See table 2 below

Table 2. Teachers' perceived challenges in integrating HOTS

The Challenges	Teacher Ana	Teacher Ani
Time constraint/limited tight schedule in teaching English subject	√	√
Planning HOTS-integrated lesson plans in limited lesson time	√	√
Students' attitude and learning motivation to think at a high level is still low	√	√
Challenge in defining HOTS	×	√
Distinguishing the level of thinking	√	√
Feeling doubts about how to integrate HOTS	√	√
Preparing learning activities that challenge students to think at a higher level	√	√
Lack of resources to support the learning process (e.g., books, libraries, and adequate computer facilities.)	√	√
Lack of resources to develop knowledge about HOTS and how to integrate it	×	√
Creating a classroom atmosphere that can stimulate HOTS	√	√

Selecting the assessment to asses HOTS	√	×
Other: <i>(If any, please specify)</i>	<i>Lack of standard/official reference sources related to HOTS in the teaching and learning process of reading and other skills</i>	×

[√ = Yes, × = No]

The challenges encountered by Teacher Ana were dealing with the time constraint or limited tight schedule in teaching English. Besides, another challenge related to the challenge in planning a lesson plan that integrated with HOTS, challenge dealing with students' motivation and attitude and differentiating the level of thinking. Teacher Ana also felt doubts about how to integrate HOTS, preparing learning activities that challenge students to think of a high-level, the lack of resources that support the learning process, creating a classroom condition that stimulates HOTS, and choosing the assessment to asses HOTS. She further adds more challenges that are the lack of available official references or resources of HOTS, specifically in teaching reading and other English skills.

Meanwhile, from Teacher Ani's perspective, she claims that she encountered some challenges. Those were dealing with the time constraint or limited tight schedule in teaching English subject, and challenge in planning a lesson plan that integrated with HOTS. Another challenge related to students' motivation and attitude, challenge in defining HOTS, and differentiating the level of thinking. She also felt doubts about how to integrate HOTS and how to prepare learning activities that challenge students to think of a high-level. Other challenges are the lack of resources that support the learning process, the lack of available resources for improving the knowledge of HOTS and the way to integrate it, and creating a classroom condition that stimulates HOTS. She did not add other information related to challenges encountered during integrating HOTS in teaching reading.

The results of the interview showed that Teacher Ana felt that the challenges she faced are primarily regarding students' attitude, vocabulary mastery, and motivation. According to her, students often feel bored and sleepy when she asks them to read several texts in English. Besides, the limited vocabulary that students have is also another challenge. Also, student motivation that sometimes goes up and down becomes another challenge that she often encountered while integrating HOTS in teaching reading. Besides, she also felt that the training he had received was insufficient. Existing training only explains the general description of HOTS. According to her, the government should

provide training in more specific skills so that English teachers get a detailed picture of how to apply it correctly in classroom practice. See the interview transcripts below.

"The challenge, as I said earlier. There are some children with characters when asked to read in English. They feel sleepy. Besides, they also have a limited vocabulary. Yes, that is my challenge; student motivation also sometimes fluctuates (I.01/TA)."

"Yes, that is what I just said, for English subjects, the stages of analyzing, evaluating, we do not know what the real action is like. The training was only given an example of one, so it was insufficient. There should be many examples that are more specific to the skill, such as reading, listening, etc ... (I.01/TA)."

For Teacher Ani, she mentioned that the challenges she encountered were related to time constraints. Integrating HOTS for her requires much preparation to design learning activities that can enhance students' HOT skills. Also, other challenges are related to the ability of students. She stated that it takes a long time to stimulate students to be able to think at a higher level. Below is her complete opinion.

"There are many things if we integrate into the classroom, we need much time to prepare, design the learning. So, sometimes, in learning, all learning cannot always be integrated into HOTS. Of the many materials, for example, six materials, maybe only two materials that can later be designed with the HOTS model, others are somewhat HOTS ... If it is about student factors, it takes a long process to stimulate students to be able to think at a high level (I.01/TA)."

3.3 The Ways Teachers Overcome Their Challenges

Having explored the challenges teachers encountered when integrating HOTS in teaching reading, the researcher asked them how they overcome their challenge. In the questionnaire, both teachers stated the ways they solve their challenges. Teacher Ana mentioned that she did reading some references of HOTS via social media, joining learning groups in social media such as Facebook, Telegram, and WhatsApp to get new insights related to HOTS and taking part in training independently. For Teacher Ani, she preferred to do a discussion with other teachers and looking further knowledge about HOTS independently.

In interview sessions, Teacher Ana revealed that she asked students to read and follow several social media accounts such as BBC account, which provided daily English-language content so that students were accustomed to reading English. She stated that:

"Yes, back to the students, I ask them to read. I also ask them to follow the BBC account or English First account because sometimes their Instagram accounts provide short material. At least, students can get a daily reading in English, that is why I require them to follow (I.01/TA)."

Meanwhile, Teacher Ani overcomes her challenges by continuing to take the time to design HOTS-based learning. Although, according to her, not all material must be integrated with HOTS, at least some must be integrated with HOTS. As stated in her statement below:

"Yes, we must still take the time to prepare HOTS-based learning and integrate it. So, the point is we cannot demand that all the learning materials that we design for students are all integrated into HOTS. So, to make it more optimal, at least we design one or two that can train students to think HOTS, the others are instead HOTS, it is okay (I.01/TI)."

4. DISCUSSION

The findings of the research indicated that teachers perceived some benefits and challenges in integrating HOTS in teaching reading. The benefits of integrating HOTS revealed from the questionnaire deals with benefits to improve students' academic achievement and motivation, enhance students' higher-order thinking skills such as critical and creative thinking skills, and benefits for students' daily life. Meanwhile, the findings of interviews implied that the benefits felt when integrating HOTS are closely related to improve students' ability to do HOTS-based test items. Also, they dealt with enhancing students' reasoning and critical thinking skills, making them more open-minded, and easier to capture information. Teachers also agree that HOTS can improve students' achievement and motivation. Some research confirms these findings. Higgins, Hall, Baumfield, and Moseley, as cited in (Brookhart, 2010) conducted a meta-analysis of 29 studies of thinking-skills interventions on student cognition, achievement, and attitudes. Their study was focused on analyzing the size of the effects of teaching and assessing thinking skills. In their analysis, the result reveals that thinking-skills interventions are effective in supporting student improvement in thinking, content area achievement, and motivation.

Moreover, Brookhart (2010) also mentions the same idea. According to her, using assignments and assessments that require intellectual work and critical thinking could increase students' achievement and motivation. Heong et al. (2011) mentioned that "HOTS is a useful tool to help students in learning, improving their performance, and reducing their weakness." Moreover, students who are trained to think to show a positive impact on the development of their education. Another positive impact is enhancing students' academic achievement. Students with a high level of thinking skills will have high academic performance (Ramos et al., 2013; Tanujaya et al., 2017).

Teachers' perceived challenges in this research deals with time-constraints, students' attitude and motivation, students' English competency, and teachers' knowledge and attitude. Besides, there were also the challenges related to external factors such as the lack of official resources and specific training to support and to develop teachers' knowledge about HOTS and how to integrate it into the teaching and learning process. These results confirmed by Sparapani (2010) found that middle and high school teachers often encountered some challenges in integrating thinking skills in their classroom practice. They are included the challenges of the schedule, student attitudes, teacher attitudes, resources, atmosphere, and assessment. Similarly, a study conducted by Aziz et al. (2017)

found that ESL teachers in Malaysia faced some challenges in integrating HOTS in their classroom practices. Those challenges deal with students, pedagogical, and institutional factors. Likewise, the results of this research are in line with the researcher conducted by Li (2016). She found that EFL teachers in China lack pedagogical knowledge about thinking skills and how to teach them, and it is closely related to the lack of training and professional development opportunities. Another challenge she found that teachers rely heavily on textbooks and also the challenges of time pressure. The last challenge relates to the compulsory curriculum, which is highly test-oriented so that it prevents them from becoming creative teachers.

5. CONCLUSION

This case study aims to explore EFL teachers' perceived benefits and challenges in integrating HOTS in teaching reading and how they overcome their challenges. The results revealed that teachers perceived that HOTS could improve students' academic achievement and motivation, enhance their HOT skills, and gave benefits for their daily life, such as making them more open-minded. Meanwhile, teachers encountered some challenges that mostly deal with time-constraint, students' attitudes, and motivation. Another challenge dealt with students' English competency, teachers' knowledge, and attitude, and some external factors such as the lack of official resources and specific training to support and to develop teachers' knowledge about HOTS and how to integrate it in teaching and learning process. To overcome their challenges, teachers read a lot of references of HOTS to improve their knowledge and also ask students to read English text a lot. Besides, they also take part in the training of HOTS independently, discuss with other teachers, and set aside some time to design HOTS-oriented learning activities.

How teachers recognize the benefits of the integration of HOTS in the teaching and learning process is a good sign. It will have a positive influence on its integration in classroom practices. Likewise, several challenges encountered by teachers influence them to be more creative in finding alternatives or solutions to those challenges. However, the government has to provide teachers' professional development opportunities to support teachers to overcome their challenges. These supports are crucial since they will have an impact on the success of the integration of HOTS in classroom practices. This research can be an in-depth overview of how English teachers' perspectives in Indonesia about the benefits and challenges they face when integrating HOTS into classroom practices. As a new curriculum innovation in Indonesia, further research can explore more deeply about how the real integration of HOTS is in classroom practices to provide a clear picture of the implementation.

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