

Bloom-ism Perspective in Remote Learning during COVID-19 Outbreak in Indonesian EFL Context

*Kartika Sari Dewi¹, Sharyn Livy²

¹ SMP Negeri 7 Jember, Indonesia

² Monash University, Australia

(*kasaridewi07@gmail.com)

First Received: 24-05-2023

Final Proof Received: 28-11-2023

Abstract

From 2020 to early 2022, most education systems globally were required to be directed remotely due to the coronavirus disease (COVID-19) pandemic. This global phenomenon also forced the Indonesian government to take action by closing all schools and reorganizing the curriculum: the basic competencies taught were reduced but still emphasized higher-order thinking skills. In response to the sudden policy adjustment, teachers are challenged to design innovative and creative teaching and learning activities that could be conducted remotely. While many available studies have conceptualized Bloom's theory from traditional classroom teaching, this study attempts to draw Bloom's frameworks during the unusual online teaching because of the Covid-19 pandemic. The objective of the study is to investigate how two Indonesian English teachers reported their experiences with applying Bloom's Digital Taxonomy (BDT) while teaching remotely. The research design was a qualitative case study. Data were collected using semi-structured interviews and analyzed using thematic analyses. BDT was used as the theoretical framework. The findings show that teachers emphasized more on the task-based language teaching method more than lecturing via Zoom. Teacher-centered learning activities were identified in the LOTS (lower-order thinking skills) stages, while student-centered learning activities were reflected during the HOTS (higher-order thinking skills) stages.

Keywords: Bloom's Digital Taxonomy (BDT); online ELT; HOTS.

Many education systems across the world have been impacted by the COVID-19 pandemic, directing schools globally to switch their traditional classroom teaching to remote learning. Remote learning primarily took place through online modes of education. Relating to this case, UNESCO (2020) predicted about 87% of students across the world were not allowed to be present at schools in an

attempt to avoid the uncontrolled spread of the virus. Responding to this advice, some countries initiated an immediate response to the pandemic. For instance, as the first country which identified COVID-19 cases, China's authority shut down all universities and schools and demanded them to convey learning and teaching activities to be conducted online (Al Abiky, 2021). Furthermore, some educational

institutions enforced more lenient policies due to the pandemic (Noor et al., 2020). As an example, Al Abiky (2021) identified that some of the United Kingdom universities decreased the final exam grade and did not calculate any mark less than the students' recent Grade Point Averages before the spring semester of 2020. Similarly, some educational policies in Indonesia were also impacted.

During the first year of the pandemic (2020), the Indonesian death rate of the intended population was high (8.9%). As a health precaution, the government shut down all schools including primary, secondary, and tertiary levels for an indefinite time (Abidah et al., 2020). As a consequence, the abrupt shift from traditional classroom teaching to remote learning required teachers to transform the practice, including teaching approaches and pedagogies. However, most teachers in Indonesia had had less experience in applying remote teaching before the pandemic struck (Abidah et al., 2020; Burgess, 2015). To assist students' learning needs during remote learning, particularly when learning English, the Indonesian government reorganized the curriculum (Kurikulum 2013). For instance, the required basic competencies for English in junior secondary schools (aged 13-15) were significantly reduced from thirteen competencies to four essential competencies. In this case, basic competencies are defined as the minimum knowledge and skills that have to be acquired by students in one year of a teaching period (Ministry of Education and Culture, 2020a). The reason the curriculum included less content was that the government wanted to provide opportunities for teachers and students to focus on the essential competencies. Therefore, the school could adapt teaching and learning flexibly during an emergency like the COVID-19 pandemic (Ministry of Education and Culture, 2020b).

English teachers in Indonesia implemented the revised taxonomy as a compulsory and crucial hierarchical model to nurture students' lower and higher-order

thinking skills (Ministry of Education and Culture, 2018). The revised Bloom's Taxonomy originated from Bloom's Taxonomy, a well-known concept of teaching and learning in education developed by Benjamin Bloom and his colleagues in 1956. Both the original taxonomy (1956) and the revised version (2001) depict a hierarchy with each category linked to the previous level as a prerequisite (see Figure 1).

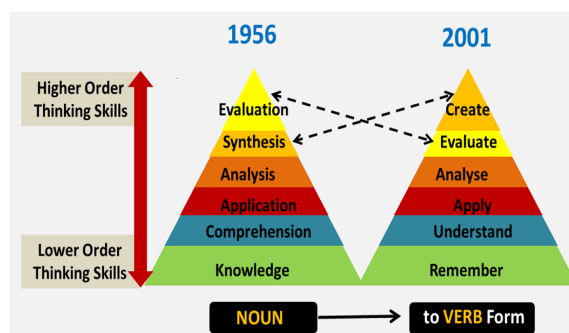


Figure 1: Bloom's Taxonomy and the Revised Bloom's Taxonomy (see Anderson & Krathwohl, 2001)

Figure 1 shows the six categories of the revised Bloom's Taxonomy, three were lower-order thinking skills (remember, understand, apply), and the highest three categories were categorized as higher-order thinking skills (analyze, evaluate, create) (Anderson & Krathwohl, 2001; Bloom et al., 1956).

While teaching remotely, technology was fundamental and affected how English teachers adapted their teaching and possibly shaped pedagogical approaches when delivering their lessons. Before the pandemic struck, technology utilization in English teaching was familiar. Robbin (2020) highlighted that English teachers utilized technology in teaching preparation, enhancing students' interest in the lesson, and material development. Specifically, the pandemic compelled teachers of all disciplines to rely on technology for teaching (e.g., Livy et al., 2021). Zhou (2020) argued that teachers who taught at China's secondary schools were not certain which platforms were suitable for students' needs because of the abundance of alternatives

available such as Google Classroom, Zoom, and YouTube. As these platforms were used in one semester of the teaching period, teachers and their students were expected to get familiar with the platforms' features and how to switch from one to another. Such technological tools required teachers to develop and adapt pedagogical and digital skills across platforms (Amin & Sundari, 2020; Marshall et al., 2020). The pandemic caused changes to educational practices worldwide including educational systems in Indonesia.

In the Indonesian context, the combination of synchronous and asynchronous online learning was implemented. Zoom was used for synchronous online teaching and Google Classroom was applied for asynchronous online activities (Atmojo & Nugroho, 2020; Rasmitadila et al., 2020). English teachers chose Zoom for synchronous online teaching since it was useful for giving real-time tutorials and lectures and facilitating students to have real-time discussions and presentations (Amin & Sundari, 2020). Inquiry-based learning was implemented as an online pedagogy to stimulate higher-order thinking skills (Brewer & Movahedazarhouli, 2018; Wale & Bishaw, 2020). Specifically, the inquiry-based learning method could stimulate students' communicative and critical thinking while teaching listening and speaking (Brewer & Movahedazarhouli, 2018). In contrast, Zhou (2020) argued that passive students in face-to-face classrooms were probably active

during synchronous online learning as they did not directly deal with their classmates and the teacher. This circumstance allowed those students to feel more comfortable in expressing ideas. However, this argument was not entirely accurate. An examination established by Szabo (2020) emphasized that learning flexibility and independence during the pandemic led to students' isolation, anxiety, and overwork. Likewise, Huh and Reigeluth (2018) noted that students are less engaged virtually because of a lack of teacher supervision. The need for a well-planned Zoom and/or Google Classrooms became essential for English teachers in Indonesia during remote learning.

In summary and within the review of literature, there were few studies (e.g., Amin & Sundari, 2020; Atmojo & Nugroho, 2020; Rasmitadila et al., 2020) reporting on how to implement the revised Bloom's Taxonomy during remote learning in secondary English teaching, particularly on how to integrate higher-order thinking skills in online learning. In contrast, many more studies report on online learning and how teaching and learning were adopted.

Theoretical Framework: Bloom's Digital Taxonomy (BDT)

By extending the revised Bloom's Taxonomy, Churches (2008) claimed that BDT could assist students' learning online. BDT emphasized, "the hierarchy of what one does with technology (verbs) rather than ordering

Table 1. Bloom's Digital Taxonomy Map (Churches, 2008)

Cognitive domain	Verbs	Digital tools	Thinking skill level
Creating	Designing, constructing, inventing, creating, podcasting, composing.	Moodle, Photoshop, audio/video recorder	HOTS
Evaluating	Critiquing, judging, reviewing, collaborating, networking, choosing	Moodle, online forum, Twitter, blog	HOTS
Analysing	Comparing, examining, commenting, explaining, integrating	Moodle, Skype, YouTube, mind maps	HOTS
Applying	Implementing, playing, uploading, operating, sharing, editing, using	Moodle, YouTube, PPT presentation, email, Skype	LOTS
Understanding	Interpreting, advanced searching, summarising, inferring, discussing, translating	Moodle, Facebook, Twitter, Skype, Google	LOTS
Remembering	Describing, listing, googling, social networking, identifying, highlighting	Moodle, Facebook, radio, Microsoft Word, Google	LOTS

technologies (nouns)” (Crook & Sharma, 2013, p. 57) (see Table 1.)

Table 1 describes the six levels of the BDT category based on the cognitive domains, verbs used to describe each domain, digital tools that are aligned with each domain, and the thinking level (reference). All categories functioned as scaffolding to build knowledge during online learning and teaching (Pickhart & Klimova, 2019). The BDT framework categorized the learning goals in a pyramid and was established following the revised Bloom’s taxonomy (see Anderson & Krathwohl, 2001; Bloom et al., 1956; Churches, 2008). Furthermore, the benefits of employing BDT as the basis of data analysis are its correlation with online learning and its juxtaposition with the emergency Indonesian curriculum. The content was reformed, but nurturing HOTS in remote learning was still highly demanded (Ministry of Education and Culture, 2020a). Therefore, BDT would be beneficial as the theoretical framework in this study when responding to the research question.

During the pandemic, the Indonesian Government provided guidelines that helped schools to plan, design, and execute how remote learning should be conducted. In this case, it was crucial for teachers to be able to translate the emergency curriculum into online teaching strategies and kept embedding HOTS as part of students’ curriculum (Carillo & Flores, 2020; Ministry of Education and Culture, 2020a). Embedding higher-order thinking-based learning is pivotal when assisting students to improve their concentration, identify key points in a text, respond to a stimulus, and develop their analytical and problem-solving skills (Schwartz & Szabo, 2011). Moreover, students and teachers were encouraged to have the knowledge and utilize digital tools to maintain learning quality. If teachers effectively utilized digital tools and embedded higher-order thinking-based learning, the gap between remote learning and face-to-face learning could be reduced (Wedlock & Gorwe, 2017). These sudden policy reformations demanded

teachers have breakthroughs when planning and teaching English online. However, integrating HOTS during online learning could be challenging for some teachers as they had not gained any workshop or online teaching experience before the pandemic struck (Habibi et al., 2021). Little is known about how Indonesian English teachers implement Bloom’s Digital Taxonomy when adapting to online teaching and is the focus of the study reported in this paper. Therefore, the objective of the study is to investigate how two Indonesian English teachers reported their experiences with applying Bloom’s Digital Taxonomy (BDT) while teaching remotely. The following research question will guide the study: During the COVID-19 pandemic, what categories of Bloom’s Digital Taxonomy do Indonesian English teachers rely on when teaching secondary students online?

Method

Study Design

Qualitative research is suitable for interpreting humans’ values and experiences in natural settings (Hatch, 2002). For this study, a qualitative research design was chosen for investigating the implementation of BDT in online English teaching during the COVID-19 pandemic. A qualitative case study was suitable for providing an in-depth analysis of data. It is because we were not reporting on a large population but rather a detailed and comprehensive description of two humans’ experiences by investigating their relationships, attitudes, processes, and contexts (Hamilton et al., 2012). In the meantime, Yin (2009) supported the idea that the “How” questions are in line with the characteristics of a case study. It is because they allow the participants to tell their perspectives of a phenomenon thoroughly in its natural context.

Participant Recruitment

Two participants were chosen and agreed to participate in the study through purposive sampling and representative of the population

(see Palinkas et al., 2015). The participants were recruited through the first author's professional English teachers' network in Indonesia. The participants were Agus and Siti (pseudonyms) and both taught English in an Indonesian junior secondary school. The students are aged between 13 and 15 years. Both participants met the following criteria: 1) English teachers who had applied online learning during the pandemic for one semester or more; 2) English teachers who had prior experience applying HOTS in their teaching based on the revised Bloom's Taxonomy. Agus had taught English for twelve years and Siti had nine years of teaching experience. Both Agus and Siti had taught English remotely for two semesters.

Data Collection

Data collection included conducting two interviews, where each participant gets one time chance. Zoom was used as the platform to conduct the interviews because the participants were in Indonesia, while the researchers were in Australia. English was used during the interviews and each lasted for forty to forty-five minutes. Nonetheless, the participants were free to switch to Indonesian if they had difficulties explaining some terms or conditions. The first author conducted and audio-recorded the interviews, transcribed the data, and translate all data into English. The interview was semi-structured, which provided a convenient interview environment. Examples of questions included:

What media or platforms do you utilize when teaching English remotely?

How did you consider the categories of the BDT framework when designing learning activities for English online learning?

How do you emphasize higher-order thinking skills in your online English teaching?

The list of questions was sent to the participants before the interview so that they could arrange their detailed answers.

Data analysis

Thematic analysis (TA) was used to

analyse the data. TA can be defined as "a method for systematically identifying, organizing, and offering insight into patterns of meaning (themes) across a data set" (Braun & Clarke, 2012, p. 57). Concerning the research question, this approach assisted both authors to identify basic themes that appear in transcripts (Braun & Clarke, 2006; Bryman, 2016). The seven stages of TA were applied to analyse the data. They included transcription, reading and re-reading, coding, generating themes, reviewing themes, defining and naming themes, and writing the report (Braun & Clarke, 2012).

Moreover, the six categories of the BDT cognitive domains guided the coding process. During the process, chunks of data related to the research question were coloured and labelled (see Table 2 below). After that, both writers convert the codes into themes through redefinition and revision (Braun & Clarke, 2006). Each theme was then named after assuring its focus, scope, and purpose.

Table 2. A Summary of Codes and Categories

Cognitive domains	Code	Colour	Indicators found in the transcripts
Creating	CR	-	Not evident in the transcripts
Evaluating	EV	Purple	The participants promoted discussions and inquiry-based learning.
Analyzing	AN	Green	The participants instructed students to investigate and analyse a YouTube video related to a topic in the emergency curriculum.
Applying	AP	Yellow	The participants gave constructive feedback on students' work both on Google Classroom and during the synchronous online learning via Zoom.
Understanding	UN	Orange	The participants allowed students to access additional exercises and English materials on Google Classroom.
Remembering	RE	Pink	The participants maximized Zoom and digital English materials such as PPTs, e-books, and videos in remote learning to introduce a topic.

All six categories of the BDT framework shown in Table 2 were used to code the interview data. However, the highest category, namely Creating, was not labeled and coded

because it was not addressed in the interview transcripts.

Results

This section presents results in Table 3 followed by narratives of the interviews. First, Table 3 below depicts the total number of codes from the interview transcripts for each BDT category. Subsequently, results are presented with the research question.

Table 3. BDT categories employed by teachers when teaching English online

BDT Categories	Teacher 1 (Agus)	Teacher 2 (Siti)	Total number of Codes
Creating	0	0	0
Evaluating	2	2	4
Analyzing	2	2	4
Applying	4	5	9
Understanding	4	3	7
Remembering	3	3	6

Table 3 shows both teachers implemented the category of applying more often than the other five categories. Based on the interview transcripts, the rationale behind this was that the applying category bridged the lower-order thinking online activities to higher-order thinking online activities. Thus, both teachers instructed more activities in this stage to prepare and elevate students' confidence and motivation while moving on to the higher categories. The next highest number of codes was the understanding category and followed by the categories of remembering, analyzing, and evaluating sequentially. The category of creating was not labeled and coded because it was not mentioned in the interview transcripts.

Furthermore, the result of the interviews revealed that both teachers gave more priority to task-based language teaching (TBLT) than online lecturing to inspect students' learning progress during online English teaching. First, both teachers introduced a topic as part of the remembering category by using digital materials. Next, they instructed students to complete some tasks online via Zoom. Siti said,

“When teaching recount text for the reading skill, I created PPT presentations explaining its definition, characteristics, and text structures and asked students to download an example text from Google to be discussed during the Zoom class. After that, I asked students to do reading exercises uploaded on Google Classroom in the form of cloze text and vocabulary matching.”

During the interview, both teachers believed that the synchronous sections via Zoom and the additional digital materials on Google Classroom assisted students to improve their reading skills and understanding of the topic. Due to the reduction of the teaching hours, listening skills did not seem to be prioritized by the two teachers because of their absence in the summative assessment. They did not allocate any Zoom classes to teaching listening skills but prioritized the other three skills (reading, writing, and speaking). They combined listening and speaking and placed a greater emphasis on speaking activities. In the face-to-face classrooms, teachers would allocate one meeting (80 minutes) to teaching listening skills only. Teachers assisted students in enhancing their listening skills by providing listening activities such as playing some recordings, filling in the gaps, or answering questions related to the recordings.

Agus and Siti did not share the same online teaching experience during the pandemic, particularly, when they taught speaking skills. Agus chose to maximize the breakout rooms in Zoom. He explained,

“I showed them a city map regarding ‘asking for and giving directions’ and demonstrated a dialogue as an example. Then, I selected some students to practice the dialogue in the main room. Since I wanted them to develop a dialogue with different topics, I sent them to breakout rooms to have a discussion and present the result in the main room.”

Siti showed a preference to use different online pedagogy. She preferred doing interactive and communicative tutorials in Zoom's main room. The rationale behind

this was that Siti's students were not verbally active when she utilized the breakout rooms for group discussions. By having all students in Zoom's main room, she was able to control and supervise students' online interaction efficiently. The first teaching step was discussing vocabulary connected to the topic. After that, she encouraged students to compose a dialogue. As the Zoom sessions only lasted for one hour, this activity was continued as group homework. Whatsapp was chosen as the platform for students to communicate and collaborate outside the synchronous sessions. In the following Zoom meeting, students presented their group work and Siti gave oral feedback for their performance. As part of the curriculum, students experienced activities to extend their knowledge of English including speaking, listening, writing, and reading skills.

Both teachers came to an agreement stating that writing was the most challenging English skill to be taught online. Agus highlighted,

"I do not have enough time to apply the stages of the writing process, from outlining to revising. I used jumbled paragraphs or jumbled sentences as the writing prompts discussed in the Zoom class and gave students writing instructions in an e-worksheet uploaded on Google Classroom with a due date. Then, I gave written feedback on their work and scored them. Unfortunately, only about 50% of students submitted the writing assignment."

On average, Agus would teach 40 minutes of Zoom lesson each week and students were expected to complete the writing assignment three to five days after the Zoom lesson. On the contrary, in the face-to-face meetings, Agus needed two to three meetings (80 minutes each) to complete a writing task. Meanwhile, Siti chose to focus on students' basic writing skills in the Zoom lessons. She typically spent two Zoom sessions before giving students a writing task. For instance, Siti decided to choose the topic of "My last holiday" for teaching recount text. Based on the emergency curriculum, eight grade

students should have the ability to compose a recount text. Before the writing process activities, Siti introduced the past tense form and some vocabulary connected to the topic. She encouraged students to make examples of sentences that used past tense forms in the chat box. She utilized picture prompts to help students arrange the sentences. After that, using a PPT, she reviewed the lesson that day by showing the correct sentence structure of past tense and examples of recount text. She concluded that students' understanding of the lesson developed during the Zoom classes, which could help them when responding to further tasks for homework.

At this stage, the implementation of HOTS based on the BDT framework in online learning was questioned by Siti and Agus. As the transition from face-to-face classrooms to online learning was abrupt, both teachers mentioned that their school could only support their teachers with internal teacher training on how to utilize Google Classroom and Zoom during the pandemic. Nevertheless, how to effectively integrate HOTS into online learning was not covered in the training. As a result, HOTS was only reflected when Agus and Siti conduct interactive learning and online discussions via Zoom (see Table 1). Agus stated,

"I am unsure whether HOTS is well-embedded in my online learning because I struggle to get the students to participate actively in my virtual classes. Although I have designed group activities in the breakout rooms to foster HOTS, my students face a language barrier to expressing their opinions, let alone discussing their critical views. Most of them are not confident to use English in the virtual classroom, so the discussion does not run smoothly."

Siti highlighted that scaffolding online activities were needed before she embedded HOTS into online English teaching. The first three synchronous meetings and additional materials on Google Classroom functioned as scaffolding from LOTS to HOTS. She also noted that the scaffolding online activities were useful to construct students' knowledge and initiate

their confidence during online discussions. To stimulate students' communication and critical thinking skills, Siti preferred to use YouTube videos during the synchronous sessions. However, the interview transcripts showed that some students monopolize the discussions, while the rest of the students were hesitant to actively participate and chose to be silent learners. To anticipate this problem, Siti placed some silent learners in the same breakout room with some active students. Unfortunately, the active students kept dominating the online discussions and the passive students remained silent.

Discussion

The discussion will be presented in two subsections: lower-order thinking skills and higher-order thinking skills, which connect the BDT framework, literature, and the results. To answer the research question, themes are built based on the digital taxonomy in the BDT framework (see Table 1).

Lower-order Thinking Skills (LOTS)

The results indicated that there were applications of LOTS (remembering, understanding, and applying) in online English teaching during the pandemic. These applications were apparent in the initial phases of online English teaching directed by both teachers, particularly when building students' comprehension of a topic. As a result, these phases reflected teacher-centered learning, in which the teacher acted as the only presenter in the class. Churches (2008) emphasizes that "one cannot understand a concept if he does not first remember it, similarly one cannot apply knowledge and concepts if one does not understand them. It is a continuum from LOTS to HOTS" (p. 3). The following section will report and discuss how English teachers embedded BDT categories of LOTS (remembering, understanding, applying).

Remembering. At this stage, "students retrieved knowledge from memory by recalling basic concepts and terms to generate definitions

and facts" (Churches, 2008, p. 3). In the first synchronous session, both teachers maximized digital learning materials to introduce and explain a topic. The emphasis was given to teaching reading and writing skills related to the topic. Both teachers agreed that the digital learning materials assist students to remember specific terms and concepts. This finding is in line with the findings reported by some scholars, stating that digital learning materials in online learning are more applicable and captivating (Al Shammari, 2020; Amin & Sundari, 2020; Hafner, 2014). At this initial phase of online learning, Siti chose to utilize PPTs, while Agus preferred to use tutorial videos since they were beneficial in drawing students' concentration. This finding is consistent with the finding of Qadha and Alward (2020), reporting that tutorial videos in online English teaching can captivate students' attention and interest as they provide auditory and visual learning sources. As the last activity in this phase, vocabulary building was the most frequent learning activity held by both teachers for the remembering stage. Hafner (2014) believes that introducing vocabulary in the early stage of learning acts as the base for students to construct knowledge.

Understanding. "This second stage of the learning taxonomy highlights students' understanding of the concepts and ideas" (Churches, 2008, p.4). At this phase, Google Classroom had a vital role for students. For instance, additional writing and reading materials were provided by both teachers in this platform to improve students' comprehension of a topic (see the coding example in Table 2). Moreover, because of the enormous number of students in the Zoom sessions, both teachers exploited Google Classroom's features to monitor students' progress and conduct the pre-task cycle of the TBLT method. As described in the interview transcript, Google Classroom was efficient in encouraging students' learning through continuous constructive feedback given by the teachers (Harmer, 2015). This learning process

served as preliminary online activities before applying the real tasks. Pre-task materials and exercises also offered flexibility for students to study anywhere and anytime. This finding supports the argument put forward by Muller et al. (2021) that student-content engagement in online English teaching encourages learning flexibility and autonomy. Overall, providing feedback for students is essential since Robbin (2020) asserts that the teacher's continuous feedback and supervision can effectively engage students to be active during online learning.

Applying. “This category requires students to apply the acquired concepts and ideas in new situations or to resolve problems” (Churches, 2008, p. 4). At this phase, both teachers conducted the task cycle of TBLT. After completing some tasks in the previous phases, students were instructed to apply their linguistic knowledge to accomplish the real task. During the process, progressive written and oral feedback was provided by both teachers. For instance, Agus assigned a writing task on Google Classroom. After students uploaded their work, He gave written feedback using the feature “add comment” on the diction, content, and tenses. The feedback was aimed to help students improve their writing. This finding reflects Guadu and Boersma's (2018) argument that teacher's feedback on linguistic features, positive aspects, and ideas is effective to improve students' writing skills. Furthermore, another example, which represents the applying phase, reported in the interview transcripts was the speaking task (group presentation) conducted during Zoom sessions. Because of the task difficulty, Siti assigned group homework to give more time for students to plan their tasks. By doing this, students were able to explore ideas and evaluate the language use. It was apparent that group homework stimulates students' HOTS and interactions outside school hours. This finding is consistent with Carillo and Flores' (2020) finding that critical thinking, communication, creativity, and collaboration

can be fostered through group homework since it supports students while executing HOTS in the synchronous Zoom sessions.

Higher-order Thinking Skills (HOTS)

Promoting HOTS in online English teaching can improve learning quality. Particularly, when students encounter unconventional problems, questions, and difficulty, memorized and common solutions will not be effective. On the other hand, in that circumstance, students need to think out of the box and integrate critical and logical thinking that leads to creative problem-solving (Nguyễn & Nguyễn, 2017). In the previous stage (applying), Siti implemented presentation and group homework as part of a teaching strategy that linked LOTS and HOTS during online learning. As the activities served as scaffolding, students were instructed to connect their past learning experiences to the new concept and context. As a result, students were able to implement their previous knowledge to resolve issues in the subsequent learning phases. In this study, the BDT framework classifies analyzing, evaluating, and creating under the HOTS category (Churches, 2008). Regarding these categories, the finding highlighted that both teachers acted as a facilitator and emphasized student-centered learning during online learning. Likewise, they utilized group discussions and questions as the online pedagogy to stimulate HOTS. For example, Agus maximized the breakout rooms in Zoom for group discussions, while Siti chose to apply inquiry-based learning in the synchronous Zoom sessions. While embedding HOTS into online learning, both teachers unconsciously merged the cognitive domains of analyzing and evaluating. The highest cognitive domain of creating was not identified in the transcripts.

Analyzing and Evaluating. “Students need to examine and split information into components at the analyzing stage to develop understanding and relationships. The evaluating category requires students to justify an action, solution, and decision” (Churches,

2008, p. 5). The results of this study showed that there was no integration of HOTS while both teachers taught writing and reading skills online since these English skills terminated at the applying stage. Nonetheless, both teachers embedded HOTS in the online pedagogy while they taught listening and speaking skills. For example, as evident in the interview transcripts, Siti emphasized inquiry-based learning in her synchronous Zoom sessions that influenced students' critical thinking. This finding aligns with Wale and Bishaw's (2020) argument that questioning strategies support students to criticize their beliefs and others, deciding the rationales, and evaluate evidence. Moreover, in line with Brewer and Movahedazarhouli's (2018) finding, Agus' teaching strategy called group discussions (via Zoom breakout rooms) nurtured students' HOTS. During the discussion, it allowed students to discuss and share ideas that establish their collaboration and communication. While accomplishing the task through group discussions, students' problem-solving and creative skills were also fostered.

Nevertheless, some obstacles emerged that potentially hindered teaching and learning activities during online learning. As evident in both teachers' comments, students' low motivation was identified as a significant issue. Only about 50% of students actively engaged in both synchronous sessions via Zoom and asynchronous sessions via Google Classroom. Consistent with an examination administered by Huh and Reigeluth (2018) and Szabo (2020), students' low motivation to engage in online learning was rooted in the lack of teachers' control and direct guidance. Another factor that influenced students' confidence and motivation was the language barrier. Even though both teachers had embedded HOTS in the phase of analyzing and evaluating, the implementation was not satisfying because only a few students were active during the online discussions while the rest became good listeners. This finding opposes Zhou's (2020) finding that "the shy and non-participative

students, who are not comfortable with participating in classroom discussions, were more likely to participate in an online class" (p. 1485). This essential finding, as evident in the transcripts, supported the comments that schools' assistance was not adequate for both teachers to emphasize HOTS in the online learning activities. Both teachers noted that they needed not only technical support but also teacher training and guidance on how to integrate HOTS into online English teaching.

Conclusion

While many available studies have conceptualized Bloom's theory from traditional classroom teaching, this study attempts to draw Bloom's frameworks during the unusual online teaching because of the Covid-19 pandemic. In line with the BDT framework, Churches (2008) classified students' online learning stages into LOTS (remembering, understanding, applying) and HOTS (analyzing, evaluating, creating). The initial three stages were teacher-centered and served as scaffolding that connect LOTS to HOTS. Students' online activities included TBLT activities. The three LOTS stages were used to conduct the pre-task and real-task cycles of TBLT in which both teachers introduced the topic, gave students access to supplementary learning materials, and provided feedback. At stage three, both teachers initiated bridging activities such as an online presentation before starting HOTS-based online learning. The categories of analyzing and evaluating were identified, while creating was not evident in the interview transcripts. Even though the teaching strategy had been integrated with HOTS, the execution was not maximum due to some factors. First, students did not equally take part in the discussions. Second, insufficient teacher training on how to integrate HOTS into online learning was the key factor that decreased the quality of teaching and learning during the pandemic.

Since Indonesian English teachers are required to use the revised Bloom's taxonomy as a reference in English teaching practice, the

findings of this study can inform other English teachers on how to embed HOTS in online learning (see Anderson & Kratwohl, 2001; Ministry of Education and Culture, 2020a). A recommendation from this study would be to develop suitable support to enhance the learning quality during online teaching. In this case, the finding gave essential information for secondary schools when considering the challenges of implementing HOTS in online English teaching. The small sample size of participants was identified as a limitation since the research was conducted as part of a master's thesis course allowing minimal time for data collection. Therefore, the findings were not able to be used to get generalizable inferences. Future studies on English teachers' experience in implementing BDT during the pandemic were encouraged to be conducted by acknowledging the limitation of this study. Other perspectives such as those of the students, school leaders, and government institutions could be considered to conduct more thorough examinations on this topic, which potentially support a holistic picture of online English teaching during the pandemic. Overall, since the COVID-19 pandemic is an ongoing global crisis, it was imperative to conduct this study, as it contributes to the literature on the implementation of BDT in online English teaching for secondary education.

References

- Abidah, A., Hidayaatullaah, H. N., Simamora, R. M., Fehabutar, D., & Mutakinati, L. (2020). The impact of Covid-19 on Indonesian education and its relation to the philosophy of "Merdeka Belajar". *Studies in Philosophy of Science and Education*, 1, 38–49. <https://doi.org/10.46627/sipose.v1i1.9>
- Al Abiky, W. B. (2021). Days without schools: The effectiveness of WhatsApp, as an English learning tool, during the COVID-19 pandemic. *Revista Argentina de Clínica Psicológica*, 30(1), 774–781. <https://doi.org/10.24205/03276716.2020.2074>
- Al Shammari, A. H. (2020). Social media and English language learning during Covid-19: KILAW students' use, attitude, and perspective. *Linguistics Journal*, 14(1), 259–275.
- Amin, F. M., & Sundari, H. (2020). EFL students' preferences on digital platforms during emergency remote teaching: Video conference, LMS, or messenger application? *Studies in English Language and Education*, 7(2), 362–378. <https://doi.org/10.24815/siele.v7i2.16929>
- Anderson, L. W., & Krathwohl, D. R. (2001). *A taxonomy for learning, teaching, and assessing: A revision of Bloom's taxonomy of educational objectives*. Longman.
- Atmojo, A. E. P. A., & Nugroho, A. (2020). EFL classes must go online! Teaching activities and challenges during the COVID-19 pandemic in Indonesia. *Register Journal*, 13(1), 49–76. <https://doi.org/10.18326/rgt.v13i1.49-76>
- Bloom, B. S., Engelhart, M. D., Furst, E. J., Hill, W. H., & Krathwohl, D. R. (1956). *Taxonomy of educational objectives: The classification of educational goals. Handbook I: Cognitive domain*. Longman.
- Braun, V., & Clarke V. (2012). Thematic analysis. In H. Cooper (Ed.). *Research designs* (pp. 57–70). *American Psychological Association*. <https://doi.org/10.1037/13620-004>
- Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative Research in Psychology*, 3(2), 77–101. <https://doi.org/10.1191/1478088706qp063oa>
- Brewer, R., & Movahedazarhouli, S. (2018). Successful stories and conflict: A literature review on the effectiveness of flipped learning in higher education. *Journal of Computer Assisted Learning*, 34, 409–416. <https://doi.org/10.1111/>

- [jcal.12250](#)
- Bryman, A. (2016). *Social research methods (5th ed.)*. Oxford University Press.
- Burgess, O. (2015). Cyborg teaching: The transferable benefits of teaching online for the face-to-face classroom. *Journal of Online Learning and Teaching*, 11(1), 136–144. https://jolt.merlot.org/vol11no1/Burgess_0315.pdf
- Carrillo, C., & Flores, M. A. (2020). Covid-19 and teacher education: A literature review of online teaching and learning practices. *European Journal of Teacher Education*, 43(4), 466–487. <https://doi.org/10.1080/02619768.2020.1821184>
- Churches, A. (2008). *Bloom's taxonomy blooms digitally*. Technology Learning. <http://www.techlearning.com/showArticle.php?articleID=196605124>
- Crook, S. J., & Sharma, M. D. (2013). Blooming heck! The activities of Australian science teachers and students two years into a 1:1 laptop program across 14 high schools. *International Journal of Innovation in Science and Mathematics Education*, 21(1), 54–69.
- Guadu, Z. B., & Boersma, E. J. (2018). EFL instructors' beliefs and practices of formative assessment in teaching writing. *Journal of Language Teaching and Research*, 9(1), 42–50. <https://doi.org/10.17507/jltr.0901.06>
- Habibi, A., Mukminin, A., Yaqin, L. N., Parhanuddin, L., Razak, R. A., Nazry, N. N. M., Taridi, M., Karomi, K., & Fathurrijal, F. (2021). Mapping instructional barriers during COVID-19 outbreak: Islamic education context. *Religions*, 12(1), 50. <https://doi.org/10.3390/rel12010050>
- Hafner, C. A. (2014). Embedding digital literacies in English language teaching: Students' digital video projects as multimodal ensembles. *TESOL Quarterly*, 48(4), 655–685. <https://10.1002/tesq.138>
- Hamilton, L., Corbett-Whittier, C., & Fowler, Z. (2012). *Using case study in education research*. Sage.
- Harmer, J. (2015). *The practice of English language teaching (5th ed.)*. Pearson Education.
- Hatch, J. A. (2002). *Doing qualitative research in education settings*. State University of New York Press.
- Huh, Y., & Reigeluth, C. M. (2018). Online K-12 teachers' Perceptions and practices of supporting self-regulated Learning. *Journal of Educational Computing Research*, 55(8), 1129–1153. <https://doi.org/10.1177/0735633117699231>
- Livy, S., Muir, T., Murphy, C., & Trimble, A. (2021). Creative approaches to teaching mathematics education with online tools during COVID-19. *International Journal of Mathematical Education in Science and Technology*, 1-9. <https://doi.org/10.1080/0020739X.2021.1988742>
- Marshall, D. T., Shannon, D. M., & Love, S. M. (2020). How teachers experienced the COVID-19 transition to remote instruction. *Phi Delta Kappan*, 102(3), 46–50. <https://doi.org/10.1177/0031721720970702>
- Ministry of Education and Culture. (2020a). *Salinan lampiran keputusan kepala badan penelitian dan pengembangan perbukuan nomor 018/H/KR/2020 tentang kompetensi inti dan kompetensi dasar pada Kuriulum 2013 pendidikan dasar dan menengah untuk kondisi khusus* [Regulation of the Ministry of Education and Culture Number 018/H/KR Year 2020 about core and basic competences for Curriculum 2013 under an emergency situation in primary and secondary education]. <http://bsnp-indonesia.org/>

- Ministry of Education and Culture. (2020b). *Salinan lampiran keputusan Menteri Pendidikan dan Kebudayaan Republik Indonesia nomor 719/P/2020 tentang pedoman pelaksanaan kurikulum pada satuan pendidikan dalam kondisi khusus* [Regulation of the Ministry of Education and Culture Number 719/P/2020 about guidelines of the implementation of the reformed curriculum under an emergency situation]. <http://bsnp-indonesia.org/>
- Ministry of Education and Culture. (2018). *Salinan Peraturan Menteri Pendidikan dan Kebudayaan Republik Indonesia Nomor 37 Tahun 2018 tentang Kompetensi Inti dan Kompetensi Dasar pada Pendidikan Dasar dan Pendidikan Menengah* [Regulation of The Ministry of Education and Culture Number 37 Year 2018 about Core and Basic Competences in Primary and Secondary Education]. <http://bsnp-indonesia.org/>
- Muller, A. M., Goh, C., Lim, L. Z., & Gao, X. (2021). COVID-19 emergency eLearning and beyond: Experiences and perspectives of university educators. *Education Sciences*, 11(1), 19. <https://doi.org/10.3390/educsci11010019>
- Nguyễn, T. M. T., & Nguyễn, T. T. L. (2017). Influence of explicit higher-order thinking skills instruction on students' learning of linguistics. *Thinking Skills and Creativity*, 26, 113–127. <https://doi.org/10.1016/j.tsc.2017.10.004>
- Noor, S., Isa, F. M., & Mazhar, F. F. (2020). Online teaching practices during the COVID-19 pandemic. *Educational Process: International Journal*, 9(3), 169–184. <http://dx.doi.org/10.22521/edupij.2020.93.4>
- Palinkas, L. A., Horwitz, S. M., Green, C. A., Wisdom, J. P., Duan, N., & Hoagwood, K. (2015). Purposeful sampling for qualitative data collection and analysis in mixed method implementation research. *Administration and Policy in Mental Health*, 42(5), 533–544. <http://10.1007/s10488-013-0528-y>
- Pikhart, M., & Klimova, B. (2019). Utilization of linguistic aspects of Bloom's taxonomy in blended learning. *Education Sciences*, 9(3), 235–243. <https://doi.org/10.3390/educsci9030235>
- Qadha, A. M. H., & Alward, M. A. (2020). The effect of using videos in teaching and learning English present progressive tense. *Interactive Technology and Smart Education*, 17(2), 159–170. <https://doi.org/10.1108/ITSE-08-2019-0045>
- Rasmitadila, Aliyyah, R. R., Rachmadtullah, R., Samsudin, A., Syaodih, E., Nurtanto, M., & Tambunan, A. R. S. (2020). The perceptions of primary school teachers of online learning during the COVID-19 pandemic period: A case study in Indonesia. *Journal of Ethnic and Cultural Studies*, 7(2), 90–109. <https://doi.org/10.29333/ejecs/388>
- Robbin, J. (2020). Effective moderation in asynchronous discussion forums in online language classrooms. *Bellaterra Journal of Teaching & Learning Language & Literature*, 13(4), 1–22. <https://doi.org/10.5565/rev/jtl3.898>
- Schwartz, J., & Szabo, Z. (2011). Targeted instruction for preservice teachers: Developing higher order thinking skills with online discussions. *International Journal of Education and Psychology in the Community IJEPC*, 1(1), 32-51.
- Szabo, Z. (2020). Teaching in pandemic conditions: A narrative about what changes and what stays. *International Journal of Education and Psychology in the Community*, 10(1/2), 241–248.
- United Nations Educational, Scientific and Cultural Organization [UNESCO]. (2020). *Education: From disruption to*

recovery. <https://en.unesco.org/covid19/educationresponse>

- Wale, B. D., & Bishaw, K. S. (2020). Effects of using inquiry-based learning on EFL students' critical thinking skills. *Asian-Pacific Journal of Second and Foreign Language Education*, 5(1), 1–14. <https://doi.org/10.1186/s40862-020-00090-2>
- Wedlock, B.C. & Growe, R. (2017). The technology-driven student: How to apply Bloom's revised taxonomy to the digital generations. *Journal of Education and Social Policy*, 7(1), 25-34.
- Yin, R. K. (2009). *Case study research designs and methods (4th ed.)*. Sage.
- Zhou, Z. (2020). On the lesson design of online college English class during the COVID-19 pandemic. *Theory and Practice in Language Studies*, 10(11), 1484–1488. <https://doi.org/10.17507/tpls.1011.21>