ABSTRACT

It has been over a decade since the Ministry of Education and Culture in Indonesia mandated teachers to foster critical thinking; however, studies document that in Indonesia, students’ critical thinking still lags behind other countries. This condition led us to investigate teachers’ understanding of critical thinking as they hold the central role in promoting it. This qualitative research survey involved 64 English language teachers who had signed up for a webinar about critical thinking. The respondents varied in terms of gender, educational background, and teaching experience. The questionnaire was distributed online, and their participation in filling out the questionnaire was voluntary. Questions were divided into two categories: the respondents’ demographic data, including gender, educational background, and teaching context. The second category focused on teachers’ understanding of critical thinking and its implementation in the classroom context. The study found that teachers do not yet have comprehensive knowledge about critical thinking, and this is reflected in their teaching practice and assessment of students’ critical thinking. Interestingly, the study revealed that only a few teachers realized that their difficulties in promoting critical thinking might derive from their limited understanding about the notion.

Key Words: Critical thinking; Indonesia; teachers’ understanding; English language teaching; pedagogy; assessment

INTRODUCTION

In the last decade the notion of critical thinking (CT) has been widely recognized as one of the pivotal skills in the 21st century. Several countries in Asia such as Singapore and Hong Kong (Mok, 2011), China (Lin, 2018) and Iran (Afshar & Movassagh, 2017), have made critical thinking part of their education reform. In Indonesia, critical thinking has been mandated in several policies (see MoEC Decree No.17/2010, Article 77 and MoEC Decree No.23/2016).

Further, the government also changed the national examination from UN to Asesmen Nasional, specifically AKM. The national examination was designed to emulate questions in PISA; Indonesia ranks the tenth lowest among other countries who applied the test. As in PISA, the current national examination required students to use higher order thinking skills to be able to answer the questions (Kementrian Pendidikan dan Kebudayaan, 2020). Under these policies teachers are expected to incorporate critical thinking into classroom practice.

Nevertheless, although it has been more than a decade since the first policy about critical thinking was issued, current studies, specifically from the ELT (English language teaching) landscape in Indonesia, have not yet reported a promising result. For example, Indah and Kusuma’s (2016) study reported that students’ argumentative essay writing did not reflect critical thinking features. In addition, several studies document that teachers are still having difficulties in fostering critical thinking in classroom contexts. Defianty and Wilson (2020), who focused their study on teachers’ competence in fostering critical thinking through questioning, found that teachers often missed the opportunity to capitalize on their questioning strategy to improve students’ critical thinking skills. Apparently, teachers still consider critical thinking to be challenging (Zainudin, Vianty, and Inderawati, 2019), and thus it is little surprise that students too have limited understanding of critical thinking (Mbato, 2019; Zainudin et al., 2019). In fact, Gandana, Nafisah, and Ayu’s (2021) study revealed that disseminating critical thinking can be challenging. The study focused on exploring teachers’ understanding of a critical thinking model which was disseminated to 13 EFL teachers. Drawing on data from teachers’ lesson plans, the study found that embedding critical teaching is still challenging because teachers have only modest understanding about critical thinking (Gandana et al., 2021).
It is important to note, though, that several studies also document success in enhancing students’ critical thinking. For example, Saputra, Joyoatmojo, Wardani and Sangka (2018), who focused their study on improving students’ critical thinking through a jigsaw problem-based collaborative learning model, found that their model was effective. Similarly, Kurniawati, Sugaryamah, and Hasanah (2020), who focused their study on incorporating critical literacy pedagogy (CLP), found that CLP can enhance students’ engagement with critical thinking.

Studies so far suggest that enhancing students’ critical thinking skill is viable provided that it is supported by teachers’ understanding of the concept. Needless to say, teachers’ professional development or training can potentially facilitate the process. Like all training programs, professional development for teachers should start from participants’ current knowledge and understanding as well as their concerns. However, although extensive research has been carried out on critical thinking in ELT in Indonesia, only a few studies have explored teachers’ current conceptions of critical thinking. For example, Ilyas (2018) focused on identifying how teachers recognize and conceptualize critical thinking, and found similarities between Indonesian teachers’ conceptions of CT and those of teachers in Western countries reported in the literature. Although Ilyas’ study has provided some insights into Indonesian teachers’ understanding of critical thinking, it was based on a limited sample of 59 teachers, and did not explore how these teachers implemented their understandings of CT or the challenges they experience in teaching CT.

This current study extends the current literature by further exploring English teachers’ understanding of critical thinking as well as their implementation and assessment of CT in classroom settings. Difficulties encountered by teachers are also surveyed.

It is understandable that teachers may find it hard to define critical thinking. Although the term has been adopted world-wide in education policies at all levels, it is notoriously hard to pin down. However, it is acknowledged widely that critical thinking skills—skills in solving problems, decision-making and deciding what to believe or do and why—will be essential in the uncertain world ahead. In our modern globalized world, the rapid pace of technological change and the ubiquitous spread of information and new ideas mean that individuals need to be skilled at making
judgments based on sound reasoning and responsible, ethical behaviour. The OECD (Vincent-Lancrin et al., 2019) also argues that CT is essential for the well-being of individuals, as it enables them to lead “good and happy” lives, and to fulfill their roles in a democratic society. Importantly, critical thinking in education also enables students to engage more deeply with their subject matter which, in turn, engenders motivation and enables learners to transfer their learning to other contexts (Biggs, 2011).

At one level, critical thinking can be seen as the application of cognitive skills. The best known skills-based approach draw on foundation of Bloom’s taxonomy of educational objectives (Bloom et al. 1956) and Anderson and Krathwohl’s subsequent revision of the taxonomy (Krathwohl, 2002). Bloom’s taxonomy was developed in reaction against the prevalence of rote learning in many education systems and has been enthusiastically adopted in many contexts, including in the Indonesian education system. It presents a hierarchy of thinking skills: lower order skills of remembering and understanding, and higher order skills of applying, analysing, evaluating, and creating. In order to interpret these skills in their pedagogy, teachers need to be able to unpack these portmanteau terms – especially in the context of their own discipline. This task is not self-evident for many teachers. Anderson and Krathwohl (2001, cited in Krathwohl ,2002) provide a list of cognitive processes associated with each level of the taxonomy. For example, “understanding” is described as “interpreting, exemplifying, classifying, summarising, inferring, comparing and explaining”. However, it could be argued that it is impossible to “understand” something if you have not first “analysed” it. Similarly, analysis arguably entails a wide range of cognitive processes, such as identifying the component parts, comparing, categorizing, identifying cause and effect, to name a few. Thus, it seems that the taxonomy has to be conceptualized and interpreted with some flexibility. Nevertheless, it has been widely applied to classroom teaching, and its associated cognitive processes can provide a platform for teachers in both explaining and assessing critical thinking.

Another skills-based approach to CT, which has its roots in the discipline of philosophy, emphasizes the role of logic in drawing conclusions and making judgments. From this perspective, students need to be taught the skills of logical reasoning including identifying assumptions, recognizing fallacies, drawing inferences, and
identifying gaps in arguments. One particular skill emanating from this school of thought is “reading between the lines” (Patrikis, 2003).

However, focusing simply on thinking skills is arguably a reductive approach to teaching critical thinking. Davies and Barnett (2015) and others emphasise that students not only need to learn skills for CT, but also to develop a disposition for CT. In other words, students need to develop habits of critical thinking and to be motivated to put them into practice. They need to develop CT traits such as open-mindedness, curiosity, scepticism and an inclination to reflect, as well as the sensitivity to know when to apply CT. Paul and Elder (2019) also emphasise traits such as fairmindedness and “intellectual humility, integrity and empathy.” Harvard University’s Project Zero project proposes that one way to build up habits of CT is to train students to follow “thinking routines” (Harvard School of Education, 2016) which are easy to apply and easy to transfer to different contexts. These routines include patterns such as “I used to think …; but now I think …”, “See, think, wonder” and “Circle of viewpoints”. The project advocates that students also need to build familiarity with CT tools such as concept-mapping and using tables and charts.

Another widely applied approach to motivation and CT is that of John Biggs, (2011) whose work focuses on the distinction between deep and surface learners. While surface learners tend to learn by rote memorization and are inclined to do the minimum necessary to pass, deep learners engage with their subject matter and are motivated to explore and think deeply rather than simply performing the required task. However, the notion of “deep” learning is another portmanteau term which is hard to apply to classroom teaching and assessment.

An enduring discussion in the CT literature is whether CT is a generic or discipline-specific practice. McPeck (1981) claimed that CT was not transferable across disciplines. However, others, such as Moore (2011), have argued that CT thinking skills are generalisable, although there are particular cultures of thinking germane to different disciplines. Most national curricula and university policies maintain that CT should be developed in every discipline. However, often CT is not made explicit by teachers in their pedagogy or in the textbooks they are required to use (Ilyas, 2017).

In the field of English language teaching, in particular, there has been a growing interest in recent years in how critical thinking should be integrated
into classroom pedagogy. Defianty and Wilson (2020) argue that CT in ELT applies in two respects: thinking THROUGH the language and thinking ABOUT the language. Especially at more advanced levels, such as in EAP (English for Academic Purposes), students have long been encouraged to apply critical thinking in their reading and writing. Students are typically asked to structure their paragraphs and essays according to CT processes such as “compare and contrast”; “for and against”; “cause and effect”; and “problem and solution” (see, for example, texts such as Oshima and Hogue, 2006). Such tasks require students to apply CT to diverse common topics such as global warming, television advertising, junk foods and so on. Defianty and Wilson (2020) call this thinking THROUGH the language, as students are required to use the English language to mediate their thinking. However, Defianty and Wilson (2020) argue that students should also be challenged to think critically ABOUT the language itself and how it is used to make meaning, from word and sentence level through to the level of discourse: how the language is used to construct concepts, negotiate relationships, and communicate information. For example, students should be encouraged to think critically about the differences between genres, how features of English compare with their mother tongue, how pronouns are used to construct relationships, how tenses provide context about action, how topic sentences assist writers to communicate with clarity, how subtle use of vocabulary can add nuance to a text, and so on. By using skills of analysis and evaluation, students can gain greater awareness of the language, improve their skills in meaning-making in the language, and increase their motivation to learn. As Li (2019) puts it,

learners need to take charge of the why and how in learning by making deliberate efforts in their learning so that they do not simply remember and recall language in its abstract form, but rather engage in critical and creative analysis and evaluation of material at hand in order to internalize and appropriate the language. (Li, 2019, p.2).

Thus, incorporating CT into English language teaching has clear benefits for the students’ immediate development of language resources, as well as for their general development of critical thinking skills and dispositions in the face of a fast-changing world modern world. Yet, despite this, and the fact that CT has been mandated in the Indonesian education system for more than a decade, English language
teachers still appear to have rudimentary understandings of CT and pedagogies for CT, as discussed in the introduction. In order to further promote CT in ELT in Indonesia, then, it is crucial to learn more about how teachers perceive, implement and assess CT.

METHOD

This study employed qualitative survey research. This design was selected because it enabled the researchers to gain information from unknown and diverse respondents (Braun, Clarke, Boulton, Davey & McEvoy, 2021). Respondents were recruited from a planned webinar about critical thinking. Prior to the webinar, the 271 participants were asked to fill out the questionnaire, distributed via a Google form. Sixty-four responses were received. The online mode made it possible to recruit respondents from varied backgrounds and diverse areas of Indonesia. Table 1 shows the respondents’ profiles.

Table 1. Respondents’ backgrounds

<table>
<thead>
<tr>
<th>Gender</th>
<th>Education background</th>
<th>Teaching experience</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>Female</td>
<td></td>
</tr>
<tr>
<td>17.2%</td>
<td>82.8%</td>
<td></td>
</tr>
<tr>
<td>High school</td>
<td>Bachelor</td>
<td>First year</td>
</tr>
<tr>
<td>65.6%</td>
<td>1.6%</td>
<td>12 years</td>
</tr>
<tr>
<td>Bachelor</td>
<td>Master’s</td>
<td>3-4 years</td>
</tr>
<tr>
<td>32.8%</td>
<td>1.6%</td>
<td>6-10 years</td>
</tr>
<tr>
<td>Master’s</td>
<td>1.6%</td>
<td>11-15 years</td>
</tr>
<tr>
<td>1.6%</td>
<td>1.6%</td>
<td>More than 20 years</td>
</tr>
<tr>
<td>10.9%</td>
<td>10.9%</td>
<td></td>
</tr>
<tr>
<td>15.6%</td>
<td>37.5%</td>
<td></td>
</tr>
<tr>
<td>23.4%</td>
<td>23.4%</td>
<td></td>
</tr>
</tbody>
</table>

The questionnaire was divided into two parts. The first part of the questionnaire concerned respondents’ demographic information, including gender, teaching experience, and teaching context. The second part, consisting of principally of open-ended questions, focused on teachers’ understanding of critical thinking and its implementation in their practice. The questions included how the respondents perceived critical thinking, how they foster the notion in the classroom context, how students were assessed, and the challenges they may encounter in implementing critical thinking. The respondents were invited to answer in English, as they were all English language teachers. After the questionnaire was designed, it was reviewed by a potential respondent and modified accordingly.

Thematic analysis was used to explore the data following recommendations by Braun and Clarke (2006). The survey responses to each question were entered into an Excel spreadsheet. Each researcher, both well-versed in the theory of CT pedagogy, coded the responses individually. Next, the coding was jointly reviewed and merged, and clustered and re-clustered into a number of themes in order to capture important patterns. Although instances of the recurrence of these themes were quantified, the numerical count was regarded as indicative only. As Braun and Clarke (2006) emphasise,
the ‘keyness’ of a theme is not necessarily dependent on quantifiable measures but rather on whether it captures something important in relation to the overall research question.

FINDINGS AND DISCUSSION

Findings

This research aimed to identify EFL teachers’ understanding of critical thinking and how it is implemented in their classroom settings. In addition, this study also explores teachers’ assessment practice and the challenges encountered by teachers in fostering critical thinking.

The overall response to the survey was poor; among 271 respondents in the critical thinking webinar to whom the survey was distributed, only 64 respondents filled out the questionnaire. Nonetheless, these respondents have provided a valuable insight into how they perceived and practice the notion. This section will be divided based on the set of questions from the questionnaires.

The research design is clearly described and appropriate for the purpose of the study. The purpose, content and usage of data collection tools are explained and justified.

Teachers’ understanding of critical thinking

Sixty-three of the 64 respondents answered the question, “What is your understanding of Critical Thinking?”, however, many respondents (17) gave vacuous, irrelevant or circular responses. For example, Teacher 7 wrote “think critically on something that we read, we listen, we see, etc.”.

The majority of those who responded gave answers which reflected a skills-based perspective on CT, and these respondents generally used terminology from Bloom’s taxonomy in defining critical thinking. For example, Teacher 8 stated that “CT is the process of conceptualizing, applying, analyzing, and evaluating based on observation or experience.” Ten respondents considered critical thinking referred to skills of applying logic; as stated by Teacher 12 “It is kind of skill that should be introduced to the students in order they can to think clearly and rationally, understanding the logical connection between ideas”. Interestingly, “reading between the lines” was also a recurring theme in the responses to the survey. Moreover, 5 respondents were perplexed in distinguishing between critical and criticize to define critical thinking. For example, Teacher 47 defined critical
thinking as “The way of thinking in criticizing things”.

Thirteen out of 64 respondents defined critical thinking in terms of dispositions. For example, Teacher 59 said that critical thinking can mean “Empowering students with the way they act and react to some issues”, while Teacher 3 defined CT as “The way of thinking that triggers curiosity, creativity, problem solving etc”. In addition, Teacher 6 also believed that critical thinking can enhance students’ participation in learning. The data also revealed that “deep” thinking was a recurring keyword in defining critical thinking, used by 8 of the respondents. For example, Teacher 3 defined critical thinking as “…deep thinking about something based on evidences.”

However, only a few respondents (7 of 64) perceived critical thinking as both skills and dispositions. For example, Teacher 23 stated that:

It's the way students think in learning something. Not only learning at school, but learning anything in their lives. How can they gain any knowledge by their own and apply it to understand another knowledges. Then, they use their knowledge to solve any problem.

Of these 7 respondents, two had copied their definitions verbatim from a website which came up immediately in a Google search (criticalthinking.org).

**Applying critical thinking**

Besides identifying teachers’ conception of critical thinking, this research also investigated how teachers apply their understanding in classroom practice. A rather unexpected result from the survey was that this question attracted the highest number of responses. This suggested that some respondents who still had fuzzy understandings about critical thinking felt able to implement the concept in their teaching practice.

Data from the research showed that there was a wide array of classroom activities applied by the respondents in promoting critical thinking, reflecting a broad approach to communicative language teaching (CLT). Many responses focused particularly on speaking activities such as discussion and debates, or generally on asking students for their opinions. In fact, questioning to promote critical thinking was cited as the most prominent teaching strategy. For example, Teacher 43 used questioning to explore students’ thinking; s/he stated
One of activities that can be applied is in "giving opinion". While a part of students agree with a statement. Ask them if they have to disagree with it, what reasons they should explain”.

Among the four language macroskills, many of the respondents mentioned reading as a means to practice critical thinking; as Teacher 11 said,

Asking my students to read "fake news" articles and asked them to analyze the article, do they think that the article is true or it's not, then I will ask them to tell the reason why do they think so.

Teacher 13 also used narrative text as a way to promote critical thinking; she stated,

When we discuss the contents of a story in a narrative text, it is very important to look for its parts: characterization of function, story crisis, etc. These all need problem solving.

Another set of responses focused on writing as a vehicle for CT. For example, Teacher 35 wrote:

Yes, for example in writing or taking notes. It takes more than just a wide range of vocab to convey one's ideas, the content must also show our understanding of the topic being written. Good writing activity is a long process of thinking and discovering things.

As the respondents mostly promoted critical thinking through reading, it is little surprise that reading texts were the most commonly cited learning materials. However, some respondents were using other learning materials such as video; as Teacher 52 said:

We give a video of a very short movie to students, then we give chance for them to ask questions or we ask some questions to them (e.g Why ... happened? or What makes a main character change his behavior? etc..) which required them to think not just take it for granted.

The majority of the respondents focused on classroom activities that could be categorised as critical thinking THROUGH the target language (Defianty & Wilson, 2020), that is, encouraging students to interact critically about diverse topics in the medium of English. Teacher 22 gave an example of how she applied critical thinking THROUGH the target language; as she stated,

when a teacher introduces or wants to discuss about an issue, then ask for the students' opinion related to
the issue, then they try to speak up, it’s a critical thinking in learning process.

In comparison, data from the questionnaire revealed that only 15 respondents’ responses concerned critical thinking ABOUT the language, that is with a focus on how the language is used to make meaning. Teacher 10 illustrated how she implemented the activity; as she claimed,

If you find the word 'does' in negative & interrogative simple present sentences, it means you don't need to have the ending ~s in the verbs for third person singular (your verbs must be back to the infinitive ones).

Similarly, Teacher 34 wrote “Evaluate how language shapes understanding (idea), like the representation of gender in canonic literature: Snow White story, Cinderella etc”.

Assessing Students’ Critical Thinking

The overall response to the question on assessment of CT was poor. Among 64 respondents, 28 respondents did not answer the question; moreover, 18 respondents did not address the question in a meaningful way. For example, one of the respondents’ answer was “CT comes first before language skills”. This finding implied that more than half of the respondents were unsure of how to assess students’ critical thinking skills. This finding is rather disappointing since assessment can provide valuable information both for students and teachers about students’ current critical thinking level. The information can then be used to provide an insight into how to alter teaching (and students’ learning) to enhance students’ critical thinking competence (Brookhart, 2010).

Moreover, data from the research showed that only five respondents considered questioning as a means to assess students critical thinking competence, even though it was widely mentioned as a teaching technique. This finding is somewhat counterintuitive because questioning can be used as a productive assessment instrument because it is flexible, and teachers can apply this instrument at any stage of learning, whether for formative or summative purposes (Wiliam & Leahy, 2015). However, three out of these five respondents were aware that they could apply Bloom’s (revised) taxonomy in implementing the technique; as the respondents stated:

By checking their answers to HOT questions (Teacher 18)

By designing the questions require critical thinking skills such as using
graded Bloom's taxonomy in the assessment. (Teacher 19)

I give the HOTS items whether spoken or written in short, long answer and can be essay. Then I check their answer with the rubric I have made. (Teacher 52)

Besides questioning, other tools the respondents used in assessing students’ critical thinking skill were debates, projects, journals and problem solving-based learning. Only two respondents mentioned the use of rubrics in assessing CT.

**Challenges**

The next question in the questionnaire was about difficulties encountered by teachers in fostering critical thinking in their classroom. The total number of responses for this question was 47; this means that 17 respondents did not answer the question.

The themes that emerged from the question about teachers’ difficulties in promoting critical thinking are presented in Table 2. By far the most frequently mentioned challenge related to students’ level of linguistic competence. For example, Teacher 26 said:

The ability level of most of my students in understanding the basic area of the language itself is still very limited, so commonly, it is not easy for them to understand the issue being discussed and express their opinion about it.

Similarly, Teacher 34 said that students’ competence contributed to the difficulties in fostering critical thinking; in the questionnaire she claimed that:

I think because some students didn't have a good comprehension. If we want to promote about the critical thinking, I think we should start from the basic, so that students can have a same comprehension to understand something before they apply the critical thinking.

In particular, students’ limited vocabulary was considered to hamper teachers in promoting critical thinking; as Teacher 37 said “The challenge is to ensure that the students are equipped with adequate vocab to express something when it comes to discussion.” In addition, the disparate levels of language ability within the class, as well as the size of large classes, were also frequently mentioned.

The most striking result to emerge from the data is that only a few respondents considered their own limited knowledge about CT and CT pedagogy to be one of the factors that
can be a barrier in promoting critical thinking. Of those who admitted their own limitations, some also complained about other factors as well. As Teacher 36 said: “I really want to promote CT but it's not easy due to lack of my creativity and lack of Ss’ learning motivation, as well the limited time allotment”.

Table 2. Source of difficulties

<table>
<thead>
<tr>
<th>Students</th>
<th>Teacher</th>
<th>Environment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age (1)</td>
<td>Limited vocabulary (5)</td>
<td>Large class (1)</td>
</tr>
<tr>
<td>Limited knowledge about critical thinking (4)</td>
<td>Limited knowledge about critical thinking (4)</td>
<td>Short time allotment (3)</td>
</tr>
<tr>
<td>Lack of confidence (4)</td>
<td>Lack of competence (17)</td>
<td>Lack of resources (3)</td>
</tr>
<tr>
<td>Culture and background (1)</td>
<td>Passive (4)</td>
<td></td>
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</tbody>
</table>

Discussion

As Ilyas (2018) found, the data from the survey indicated that Indonesian ELT teachers have a range of ideas about how to define critical thinking which reflect concepts in the literature, particularly those drawn from Bloom’s taxonomy. However, more than a quarter of the respondents showed only limited understanding of CT. This is concerning, especially as the sample group of teachers in the study was biased towards those who were already interested in the concept of CT. They were a group of committed teachers at all levels of ELT education, who participated voluntarily in the online forum from which they were recruited because they were keen to improve their professional learning. Further, they had made the choice to join a webinar on critical thinking. Yet, despite this, only 64 of the 271 webinar respondents were willing to complete the survey and, of these, 17 gave vacuous answers like CT is “a method that forces someone to think critically” (Teacher 64). Others gave vague definitions like “deep thinking”, or over-precise definitions, focusing on only one narrow aspect of CT, like “reading between the lines” (Teacher 42). Overall, the results confirm the findings of Defianty & Wilson (2019) that Indonesian teachers of English do not have a clear understanding of CT.

It was also somewhat disappointing that such a small proportion of respondents recognized CT dispositions in their definitions. Qualities such as open-mindedness and curiosity are fundamental to the transference of critical thinking skills, and a recognition of the importance of CT dispositions is crucial in engaging students in CT practices. Wilson (2016) in a study of critical reading in EAP (English for Academic Purposes) found that students who were not engaged were marginalized from the classroom activity and only minimally able to apply CT in their reading of the text.

In addition, when asked about the challenges they faced in teaching CT,
most teachers failed to recognize their own limitations, although a few did confess that their limited understanding of CT was a barrier to incorporating it into their teaching.

It is understandable that teachers might find it difficult to encapsulate their conceptions of CT in an online survey, given the widely ranging and diffuse definitions in the literature. Definitions such as “deep thinking” do little to demystify CT or to give teachers any indication as to how to enact teaching for CT in the classroom. Most teachers in Indonesia are familiar with the idea of higher-order thinking skills (HOTS) from Bloom’s taxonomy which has been widely promoted. In fact, teachers are now required to assess HOTS. However, as discussed above, the HOTS terminology involves portmanteau terms which are hard to unpack into the multiple cognitive processes which they imply. “Analyse”, for example, could imply breaking something into the component parts, categorising, seeing how something works, identifying the problems inherent in something and deciding on possible solutions, identifying the causes of a phenomenon and speculating on its effects, and so on. Moreover, the way in which analysis is applied in different disciplines varies, and this is a conundrum for English teachers who may not be not specialists in the discourse areas in which their students are participating.

A further challenge for teachers in Indonesia, as Ilyas (2017) points out, is that CT was not traditionally a feature of education in Indonesia either during the colonial era, nor during the three decades of the Suharto’s “new order”. So teachers themselves were not exposed to CT during their own schooling. The sometimes vacuous answers in the survey may point towards this issue.

Without a clear understanding of CT, it may be very difficult for teachers to incorporate it into their teaching. As Vincent-Lancrin, S., et al. (2019) have explained,

it often remains unclear for teachers what creativity and critical thinking... actually mean and entail in their teaching practice. Rather than a problem of “resistance to change” or “innovation fatigue”, the lack of implementation comes from a lack of clarity about what these big concepts actually mean, and how they translate into teaching, learning and formative assessment. (Vincent-Lancrin, S., et al., 2019, p.20)

The teachers’ limited understanding of CT and their lack of confidence was also apparent in the examples they gave of implementing
CT in their classrooms. Although some of the teachers gave rich and knowledgeable responses, generally the respondents gave little elaboration of their teaching of CT. For example, Teacher 43 wrote “Writing is an excellent example to nurture CT”. Many answers centred vaguely around “discussion” or “asking for an opinion”. For example, Teacher 55 wrote “By giving my students many questions and ask their opinion related to the theme that we are going to discuss.”

The vagueness of these responses gives some insights into why teachers found it difficult to elicit CT in their classes. Although discussion is clearly fundamental to CT, it can be difficult to stimulate substantial interaction in class if students have not been provided with sufficient scaffolding (Wilson, 2016). The respondents’ most commonly stated challenge was the generally low level of language skills amongst their students, as well as differential levels of English language skills, particularly in large classes. The teachers mentioned lack of relevant vocabulary, in particular, but the students’ reluctance to participate may indicate more than just a paucity of vocabulary. They may be tongue-tied because they do not how to respond to the teacher’s questions, or what is expected when they are asked for “an opinion”. CT, although it is at root a basic human skill does not just happen: it needs nurturing and developing, in other words “scaffolding”.

Given the teachers’ vague definitions of CT, and their restricted approach to teaching CT, it is not surprising that they were generally unsure of how to assess CT, with more than half admitting that they either did not assess it or were not sure whether they assessed it or not. Given that it is compulsory for ELT teachers in Indonesia to assess their students’ use of higher order thinking, this finding was both surprising and concerning. Once again, their answers to the question were often vague, for example “I assess my students when I am asking my students to think the best answer” (Teacher 45). Only one teacher mentioned the use of rubrics for assessing CT.

The results of this survey, as recommended by Ilyas (2018), demonstrate clearly that there is a need for further professional development for teachers in the area of CT. Teachers need to have a clearer understanding of CT, but importantly they also need to know what it really means to teach for CT: what classroom practices support CT; what tasks can be used to engage students in critical thinking; what kind of scaffolding is needed to enable them
to achieve these tasks successfully; and how to assess students’ development of CT skills and dispositions.

Professional development programs also need to take into careful consideration the barriers to teaching CT which were identified by the respondents in this survey. In order to support students with low language skills and lack of exposure to CT, teachers need to understand the concept of “scaffolding”. According to Hammond and Gibbons (2005), scaffolding involves both “high challenge” and “high support”. They advocate the use of high challenge tasks which extend the students’ abilities and engage students of all abilities within the class. Project-based learning, debates, and essay-writing, as mentioned by the respondents in the survey, can all be all good examples of high challenge tasks. However, it is crucial that students are also provided with plenty of support so that they can achieve these high challenge tasks successfully. High support can be “designed-in” if teachers prepare stimulating input material, thought-provoking questions, and carefully sequenced sub-tasks which build the language resources and CT skills that are necessary language resources for rich participation. For example, they may benefit from analysing model texts, or from engaging with visual material before engaging with more challenging textual material. This kind of scaffolding can be planned into a lesson sequence. Teachers also need to build skills in what Hammond and Gibbons call “contingent scaffolding”. This is the “on-the-spot” ability to ask questions that push students towards deeper CT. Defianty and Wilson’s (2020) research found that EFL teachers’ ability to ask such questions was limited.

Importantly, the teaching of CT needs to be made explicit. Abrami et al. (2008) in a meta-analysis of 117 studies of CT instruction should follow the “infusion” approach in which CT learning objectives are explicitly communicated to students. In a later study, Abrami et al. (2015) found that effective strategies for teaching CT included exposure to authentic problems and examples, rich opportunities for dialogue and ongoing support.

Professional development activities need to be enriched with achievable models of good practice. Teachers need to be to see how CT pedagogies can be implemented in Indonesian contexts, including with large classes and in rural and regional areas. This suggests that further research is needed to identify examples of good practice that can serve to inspire EFL teachers and help
them to recognize how teaching for CT can be enacted in contexts similar to theirs. Such models could assist teachers to develop their own repertoires of practice that will enable them to infuse their pedagogy with CT.

CONCLUSIONS AND SUGGESTION

This study has lent further support to previous research (Defianty & Wilson, 2020; Ilyas, 2018; Zainudin, Vianty & Inderawati 2019) which has shown that, although ELT teachers in Indonesia are familiar with some of the terminology from the literature on CT, their understandings may still be “fuzzy”. In addition, the data suggests that teachers have a limited repertoire of pedagogical strategies for CT, and in particular, that they lack understanding of how to assess CT. The sample group for the study was biased towards teachers who were committed to quality teaching and who had an interest in CT, so the findings may be somewhat optimistic as a portrait of ELT teachers nationwide, and given that CT has been mandated in Indonesia for more than a decade, it is concerning that these teachers were still limited in their understanding of pedagogies for CT.

Nevertheless, the study suggests a fairly positive view of CT in ELT in Indonesia. Teachers already have some understandings of CT, albeit not well-developed. Good professional development with a focus on practical applications in the classroom, as well as assessment strategies for CT, has the potential to enable Indonesian teachers of English to infuse their teaching of English with critical thinking.

Hence the study suggests that there is a need for further research focusing on classroom strategies for teaching CT. Teachers would benefit from real-life examples of how teachers can successfully integrate CT into their pedagogy. In particular, it would be useful to have more examples of the use of scaffolding as a pedagogy to support the development of CT, including strategies for developing students’ language resources and at the same time engaging students in critical thinking activities. Further, future research should focus on productive strategies for assessing CT, both formatively and summatively.

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