INTERNATIONAL JOURNAL OF ACADEMIC RESEARCH IN PROGRESSIVE EDUCATION & DEVELOPMENT

OPEN ACCESS JOURNAL

Vol 12, Issue 2, (2023) E-ISSN: 2226-6348

Evaluating Critical Thinking Elements in a Secondary School English Language Textbook in Malaysia

Qing Yi Ng and Joanna Joseph Jeyaraj

Faculty of Educational Studies, Universiti Putra Malaysia (UPM), 43400 Serdang, Malaysia

Email: qyng.acad@gmail.com

Corresponding Author Email: joannajoseph@upm.edu.my

To Link this Article: http://dx.doi.org/10.6007/IJARPED/v12-i2/17454 DOI:10.6007/IJARPED/v12-i2/17454

Published Online: 24 June 2023

Abstract

Despite increasing calls to develop critical thinking (CT), Malaysian students struggle with CT due to the lack of opportunities to engage with these thinking skills in the classroom. In this study, we explore the potential for CT engagement within the context of English language education by focussing on a prescribed textbook that is used in secondary schools nationwide. We sought to determine CT elements infused into *English Download B1+ Student's Book* and to explore how the textbook encouraged the use of CT among students. Quantitative content analysis was utilised to analyse and evaluate CT elements in the textbook and qualitative content analysis was employed to further examine and explicate textbook tasks. Instruments used included the Cambridge Assessment Taxonomy of Critical Thinking, California Critical Thinking Disposition Inventory (CCTDI), and CT activities from Jebbour's (2019) analysis checklist. Our analysis revealed that CT activities had the highest frequency of occurrence, followed by CT skills, and lastly CT dispositions. Therefore, we recommend more opportunities for CT dispositions to be developed through textbook tasks. Additionally, while the presence of CT activities in textbook was observed, we suggest a greater variety of tasks to address the teaching of the four main language skills.

Keywords: Critical Thinking, English Language Textbook, Secondary School, Textbook Evaluation, ESL/EFL

Introduction

Current education across the globe beckons a new paradigm for students to be equipped with 21st century skills deemed important for success in life. 21st century skills include learning skills, literacy skills, and life skills. One important skill which has been categorised as a learning skill is critical thinking (CT), which demonstrates the human ability to think intelligently and wisely on the basis of adequate judgement. This thinking skill has been instrumental in leading to high academic performance among children and adults (D'Alessio et al., 2019; Ren et al., 2020) and in enabling them to make better life decisions (Butler et al., 2017). The growing importance of CT is recognised with it being one of the four skills most frequently endorsed among the national policy documents of 152 countries (Care et al., 2018). Furthermore,

employers have consistently named CT among the highly demanded skills in the workforce (Finley, 2021; World Economic Forum, 2020).

With the English language positioned as a lingua franca and the power of language being interrelated with thought and culture, the imbuement of CT with English language education (ELE) is needed (Yuan et al., 2022). In Malaysia, which is the context of this study, the Malaysian Education Blueprint 2013-2025 (MEB) (2013) lists CT as one of the six aspirations for Malaysian students. The MEB calls for students to gain mastery over "a range of important cognitive skills, including critical thinking, reasoning, creative thinking, and innovation" (Ministry of Education Malaysia, 2013, p. 10). In line with this national aspiration, thinking skills have also been given significant focus in ELE at the secondary school level. The Standards-Based English Language Curriculum (SBELC) seeks for Higher Order Thinking Skills (HOTS) which is "the ability to apply knowledge, skills and values in reasoning, reflecting, problem-solving, decision-making, innovating and creating" (Ministry of Education Malaysia, 2020, p. 12) to be embedded in a systematic and structured manner. The notion of producing critical thinkers through education is reiterated, forging the connection between mastery of the English language and CT. Therefore, CT in ELE is aligned with present educational needs in Malaysia (and elsewhere) in preparing learners for the future.

One way to develop CT is through tasks and activities which students are presented with through textbooks and course books, and English language teachers and learners have acknowledged the need for CT-infused tasks to be included in English language textbooks for various reasons. In Nigeria, teachers believed English as a Second Language (ESL) textbooks played an important role in fostering learners' CT by providing comprehensive and authentic content, encouraging autonomous learning, and containing various interactive and critical learning activities (Adeosun, 2021). In China, English as a Foreign Language (EFL) teachers agreed that CT-based textbooks are vital materials to enhance their teaching instruction (Zhang et al., 2020). In the Malaysian ESL context, teachers found English language textbooks beneficial when their activities sparked CT in learners as opposed to "merely rote learning" (Johar & Aziz, 2019, p. 10). Meaningful vocabulary exercises in the textbook were able to assist learners in improving CT (Bakar & Ismail, 2021).

While the importance of CT-infused tasks and activities has been recognised, there still is a general dissatisfaction over some of the content in prescribed textbooks. For example, Malaysian teachers felt that prescribed textbooks lacked guidelines for teaching CT, did not encourage CT, and had an inadequate number of CT-enabling tasks (Jazuli & Yamat, 2020). Teachers also attributed students' inability to form opinions or develop a critical attitude due to a lack of emphasis on CT in textbooks (Piedade et al., 2020). This presents a problem where English language textbooks as the primary source of English language teaching (ELT) material do not allow ample opportunities for CT.

Hence, there is a need to study CT elements in secondary school English language textbooks in Malaysia as a response to the shifting trends in education locally and globally. CT integration in textbooks reflects the aspirations declared in the Blueprint. Further examination of how CT is manifested will indicate whether English language textbooks contain sufficient opportunities in encouraging learners to think critically. Moreover, it ensures the relevance of selected textbooks in the Malaysian English language curriculum. The textbook as a resource benefits teachers and learners in the ESL classroom, putting forth

the value of investigating the suitability of prescribed textbooks in cultivating CT within the context of ELE.

With this in mind, we sought to examine an English language textbook (*English Download B1+ Student's Book*) which is currently prescribed for Form 5 students in Malaysia. Our interest in evaluating this textbook stemmed from our observation that there has been limited exploration into CT elements within ELT textbooks in Malaysia, in spite of the strong emphasis on CT in the MEB. There have been investigations into how HOTS and cognitive domains have been embedded into primary level textbooks (see Hidayat, 2019; Tan et al., 2018); yet to our knowledge, there have not been any studies that have investigated how CT is infused into the prescribed English language textbook that is currently being used at the secondary level. Therefore, the research questions that drove this study were:

1) How are CT elements infused into the selected textbook?
2) How does the selected textbook encourage the use of CT among students?

Through this study, we aim to shed light on the utility of this selected English language textbook that is used nationwide in Malaysia by focussing attention on the presence of CT elements. In doing so, greater insight into the opportunities students are presented with to engage with CT elements through ESL is better understood. Furthermore, the use of the Cambridge Assessment taxonomy of Critical Thinking (Black et al., 2008) which to our knowledge has not been used in evaluating English language textbooks provides added insight into ELT material evaluation research.

Literature Review

Definitions and Conceptualisations of Critical Thinking (CT)

The construct of CT is highly contested given the plethora of definitions in the field. Modern conceptualisations of CT were brought forward by prominent scholars such as John Dewey, who described CT as "the kind of thinking that consists in turning a subject over in the mind and giving it serious consecutive consideration" (Dewey, 1997, p. 3) based on related premises and the conclusions it leads to. Facione (1990) defined CT as "purposeful, self-regulatory judgement which results in interpretation, analysis, evaluation, and inference, as well as explanation of the evidential, conceptual, methodological, criteriological or contextual considerations upon which that judgement is based" (p. 2). It is understood that CT comprises, while non-exhaustive, skills including interpretation, analysis, evaluation, inference, assessment, reason, judgement, and reflection, with rationale and justifications.

Li and Liu's (2021) study on analysing the key elements of CT concluded that the Cambridge panel framework (Cambridge Assessment taxonomy) (Black et al., 2008) is the most comprehensive. Cambridge Assessment defined CT as "the analytical thinking which underlies all rational discourse and enquiry. It is characterised by a meticulous and rigorous approach" (p. 33). The focus on rationality complies with the CT skills description in the SBELC for secondary schools, "the ability to evaluate an idea logically and rationally in order to make good judgment using logical reasons and evidences" (Ministry of Education Malaysia, 2020, p. 12). The taxonomy presented main CT skills such as *Analysis*, *Evaluation*, *Inference*, *Synthesis/construction*, and *Self-reflection and self-correction*.

CT, however, does not exclusively represent skills belonging to the cognitive and metacognitive domains. CT combines disposition, skill, and content knowledge; the act of thinking critically happens from an inclination or tendency to do so, combined with cognitive factors to act on acquired knowledge (Halpern, 1999; McPeck, 1981; Siegel, 1990; Thomas & Lok, 2015). The California Critical Thinking Disposition Inventory (CCTDI) developed by N. C. Facione et al. (1994) is one of the most influential tools used to measure CT dispositions and is widely applied and referenced in CT in ESL/EFL literature (Fung & Liang, 2019; Ghaani & Pauline Roslin, 2021; Liang & Fung, 2021; Lin, 2018). It includes seven dispositions: *Truth-seeking*, *Open-mindedness*, *Analyticity*, *Systematicity*, *Inquisitiveness*, *CT Self-Confidence*, and *Maturity*.

Critical Thinking (CT) in English Language Education (ELE)

There is empirical evidence of successful CT teaching and learning in ELE for primary, secondary, and university students, with strategies and instructions such as critical discourse analysis, explicit reasoning, exploratory talk, questioning with HOTS, and inquiry-based, collaborative instruction (see Fung & Liang, 2019; Hashemi & Ghanizadeh, 2012; Liang & Fung, 2021; Mustika et al., 2020; Wale & Bishaw, 2020). Studies have indicated that linguistic proficiency is crucial in developing CT (Luk & Lin, 2015; Moeiniasl et al., 2022). Second language proficiency barriers cause learners to express less content and utilise a smaller variety of linguistic features despite them possessing CT to a certain extent.

Infusion is an approach to teaching thinking skills in a subject-specific setting by using learning content and materials according to context (Swartz, 1992). Learners will be given explicit CT practice in their subject to raise awareness of how they think and understand the content, and how their ideas develop from the source material, thus facilitating language learning. A mixture of the infusion approach, CT, useful instructional strategies, and materials are vital in creating advantageous English language learning. Effective materials and content offer a promising foundation for teachers to work CT into English language instruction and improve learners' abilities to think and communicate. They support teaching by providing suitable written and visual resources, tasks, and activities, or the basis for teacher-designed tasks and activities, which will stimulate and scaffold language learners' CT.

Studies on Evaluation of Critical Thinking (CT) in Textbooks

Numerous studies from various countries across the globe have examined the presence of CT in ELT textbooks and materials and students' experiences of engaging with CT through these learning materials. For example, in Indonesia, Ilyas (2015) examined CT questions and tasks in nine ELT textbooks that were employed in Indonesian senior secondary schools and found that though CT was not emphasised in textbooks, students were open to engaging critically with content. In another Indonesian context, Nastiti (2020) analysed reading texts in an English language textbook based on Bloom's taxonomy and found that the reading text questions contained HOTS to enhance students' CT; however, not all chapters in the textbook contained CT.

There have been some studies that have shown significant presence of CT-infused tasks. For instance, Jebbour (2019) explored CT in a Moroccan high school English language textbook and concluded that the textbook included significant CT skills, dispositions, and activities. Similarly in China, Wu and Pei (2018) analysed CT reading comprehension questions in three

EFL textbooks for undergraduate English language major students. They found that the textbooks, published in 2004, 2010, and 2015 respectively, had an increase in CT integration into tasks and activities.

The importance of textbook evaluation is evident from these studies as the value of CT is recognised by students themselves and gradually, material developers. Despite this, the review of studies shows that there is still a lack of CT infusion and emphasis in English language textbooks. Further improvement was suggested by researchers to incorporate more CT elements in textbooks covering all units and topics. Textbooks that are deficient in CT take away the opportunity for deep scaffolding and meaningful language development.

In addition, gaps in the literature were observed. Firstly, there is a lack of other theories or taxonomies other than Bloom's used to evaluate CT in English language textbooks. Next, CT infusion in language skills other than reading has not been given enough attention in textbook evaluation. Furthermore, there is insufficient data on teacher and learner perspectives to complement study findings. Lastly, there is a lacuna of research on CT in English language textbooks in Malaysia. This study addresses some of the gaps by employing a different, more comprehensive taxonomy to construct an analysis checklist, including several CT dispositions and activities.

Methodology

For the purpose of analysing the selected textbook in this study, a checklist was adapted from Jebbour (2019) to collect data on CT elements infused into the textbook, including CT skills (*Analysis*, *Evaluation*, *Inference*, *Synthesis/construction*, *Self-reflection and self-correction*), dispositions (*Truth-seeking*, *Open-mindedness*, *Analyticity*, *Systematicity*, *Inquisitiveness*, *CT Self-Confidence*, *Maturity*), and activities (open-ended questions, collaborative learning, debate, media analysis, critical writing). Jebbour's checklist was chosen as it is the most comprehensive of these elements. The checklist was modified so that it measures the frequency and percentage of CT elements identified in the textbook. The analysis was conducted based on reading, listening, speaking, writing, vocabulary, and grammar skills in each unit of the textbook, and numerical data could be collected. Findings from the checklist were then elaborated further for the qualitative aspect of this study.

The checklist criteria consisted of three parts: Part A, Part B, and Part C. Part A included CT skills of 5 items based on the Cambridge Assessment taxonomy (Black et al., 2008), which were identified according to task instructions in the textbook. Part B comprised CT dispositions from CCTDI (Facione et al., 1994) which had 7 items. CT dispositions were determined through the type of task or activity provided, and whether they encouraged the dispositions to be developed in learners. Part C listed 5 items referring to activities for teaching CT suggested in past literature and Jebbour 2019. To ensure the content validity of the study, the checklist was examined by an expert in the field. The checklist was found adequate, and no modifications were made. One of the approaches used to make sure of reliability is intra-rater reliability checks, pertaining to the stability of the research process across time (Riazi, 2016). Thus, we redid and checked the analysis of the textbook after two weeks.

For content analysis, each page in the textbook was analysed quantitatively for the frequency of CT occurrence in textbook tasks. In some instances, there were multiple CT elements present in one task. The tasks which were identified to be infused with CT elements were selected for qualitative content analysis. Each task was examined according to the definitions of the respective CT skills, dispositions, and activities from the frameworks and previous literature adopted in the checklist. Firstly, the task requirements in the textbook were observed and broken down into smaller pieces of instruction. For each instruction, we identified their learning objectives or rationale. In other words, what skills, abilities, or attitudes did the task intend for students to learn or utilise, and how would that contribute to their learning development? Next, the objectives were crosschecked with the definitions of CT elements for any matches. Identical terms, including their explicit and implied meanings, and the context of the tasks were considered in order to determine the relevance between the two.

Results

Critical Thinking (CT) Elements in the Selected Textbook

A total of 535 tasks were identified and analysed in *English Download B1+ Student's Book*. The frequency of occurrence of CT elements was calculated as shown in Figure 1. Results from the analysis showed that CT activities occurred most frequently with a percentage of 29.72% (159), followed by CT skills which was the second most frequent at 25.42% (136), and the least frequent was 20% (107) for CT dispositions.

Figure 2 shows the frequency of occurrence of CT skills in the textbook according to each language skill. *Synthesis/construction* was the most frequently occurring CT skill with 74 (13.83%) tasks. The second most frequent was *Inference* with a total of 35 (6.54%) tasks, followed by *Evaluation*, which had 16 (2.99%) tasks. The CT skill with the second lowest frequency was *Analysis* with 11 (2.06%) tasks. Lastly, no tasks (0%) contained *Self-reflection and self-correction* as a CT skill in the textbook.

The frequency of occurrence of CT dispositions in the textbook is depicted in Figure 3. *Analyticity* was the most frequently occurring CT disposition which was 56 (10.47%) tasks. Next, *Systematicity* was the second most frequent with 23 (4.30%) tasks. On the other hand, the least occurring CT dispositions were *Open-mindedness* with 10 (1.87%) tasks, *Maturity* with 10 (1.87%) tasks, *CT Self-Confidence* with 7 (1.31%) tasks, and *Truth-seeking* which had only one (0.19%) task. There were no tasks (0%) involving *Inquisitiveness* in the textbook.

The frequency of occurrence of CT activities in the textbook is presented in Figure 4. The most frequent CT activities were open-ended questions with a sum of 86 (16.07%) tasks and collaborative learning with 72 (13.46%) tasks in total. The least occurring CT activity was debate with only one (0.19%) speaking task. Lastly, there were no tasks (0%) infused for media analysis and critical writing activities in the textbook.

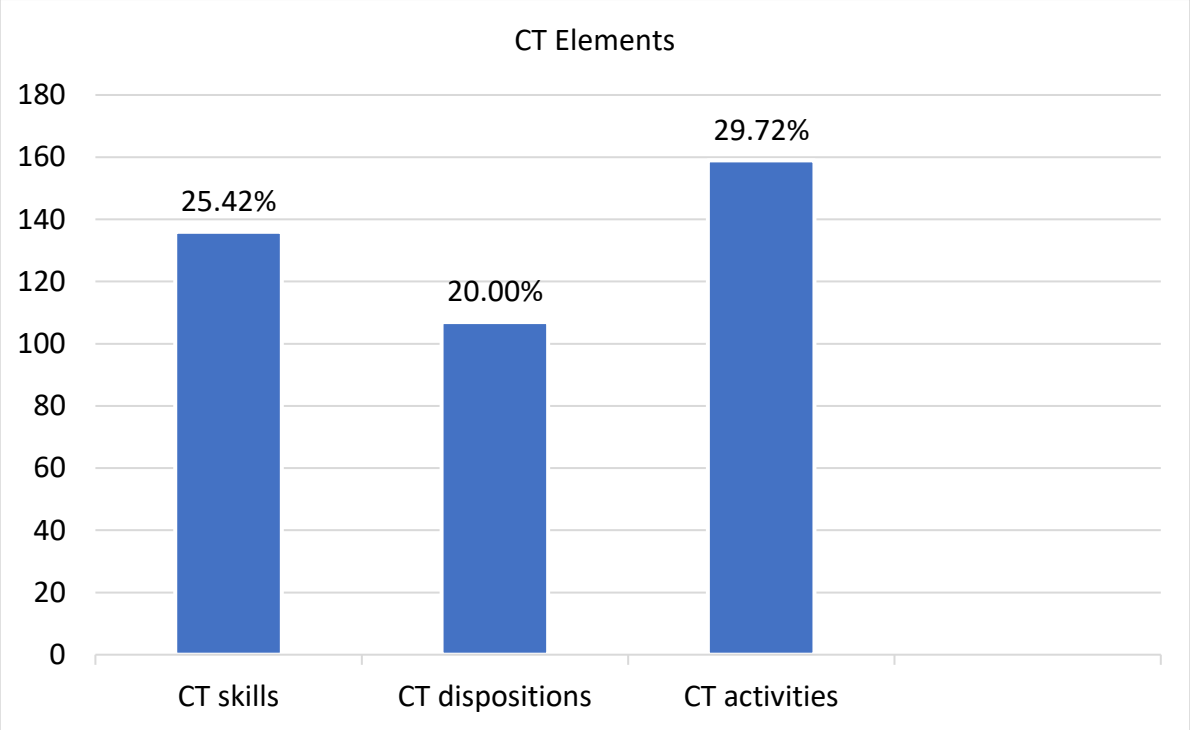

Figure 1. CT elements in the selected textbook

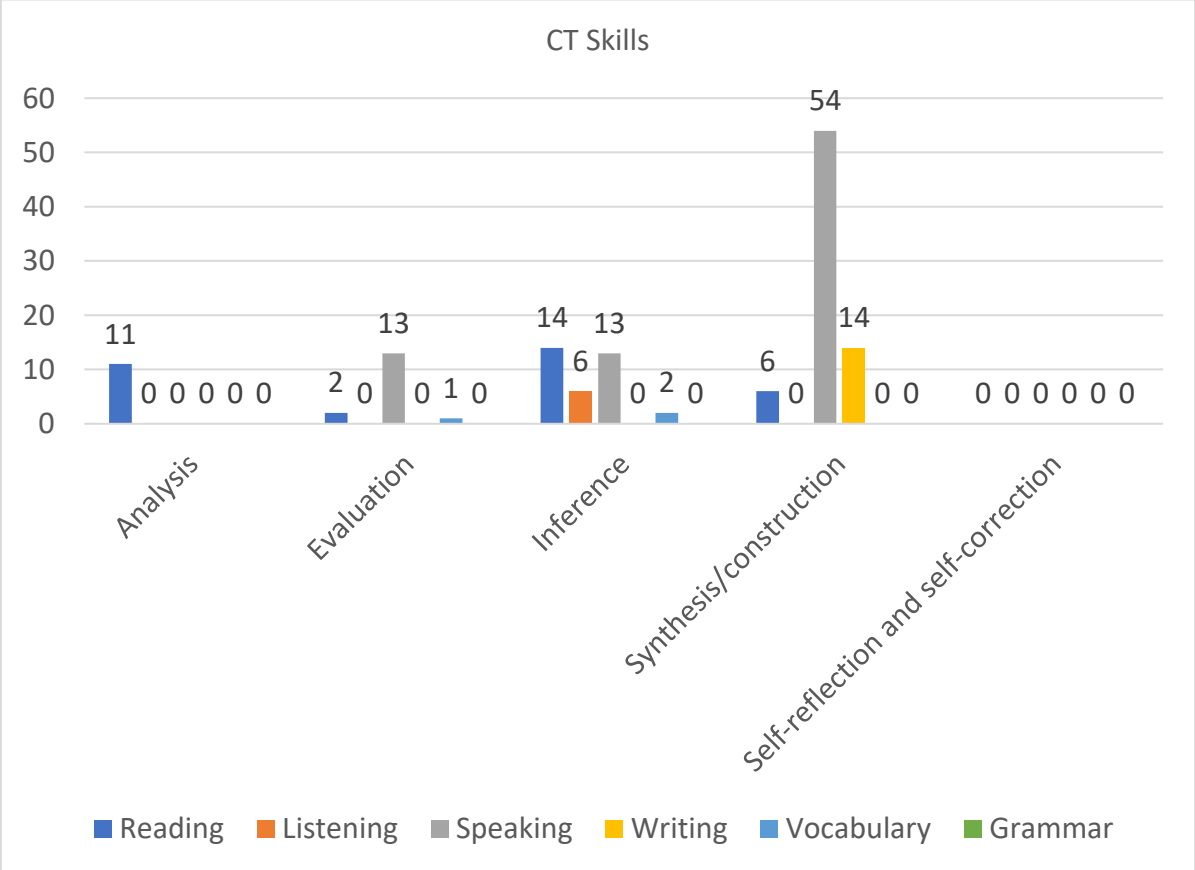

Figure 2. CT skills in the selected textbook

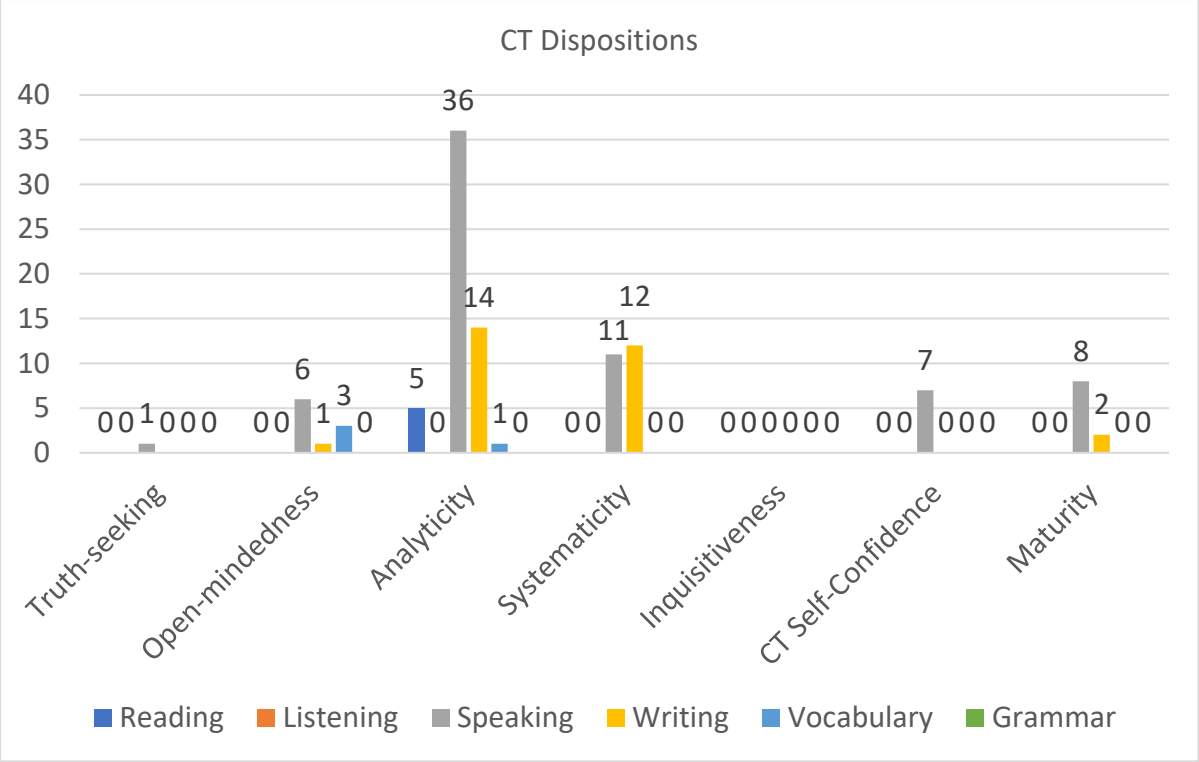

Figure 3. CT dispositions in the selected textbook

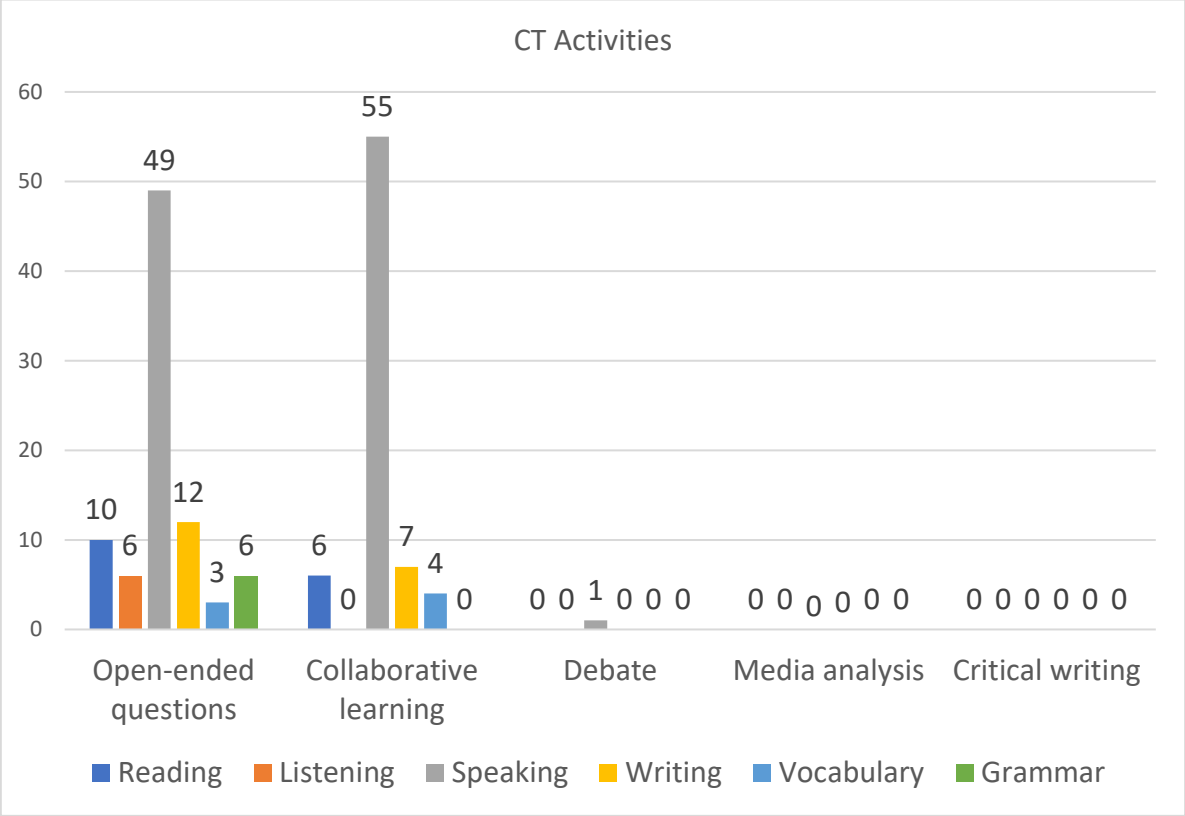

Figure 4. CT activities in the selected textbook

Encouraging the Use of Critical Thinking (CT) Skills through Textbook Tasks

Throughout the textbook, *Analysis* as a CT skill was only present in reading tasks. The tasks required students to identify topic sentences, opinions and main ideas, usage of examples to

support arguments and recognise the function of each idea in paragraphs. For example, students are given a short argumentative passage about privacy among sports celebrities. They had to determine if one of the points support or contrasted with the main idea of the writer (Unit 3, p. 41). Hence, students were provided the opportunity to break down a piece of text into components of an argument and understand their uses in discourse.

Evaluation, *Inference*, and *Synthesis/construction* were often found in speaking tasks. One example of this was a scenario about whether a friend should start a photography club (Unit 1, p. 13). Students were to work in pairs; one student asks related questions while the other replies with information at the back of the textbook and provides advice. In terms of CT skills, they had to evaluate the options provided by weighing their advantages and disadvantages (*Evaluation*), and thinking about the implications of each choice (*Inference*). Finally, students had to give advice and opinions to their partner and justify their decision (*Synthesis/construction*). This would require them to synthesise ideas and construct original, coherent opinions (Adeosun, 2021). Thus, this task was able to infuse three CT skills although it is one single task.

Developing the Use of Critical Thinking (CT) Dispositions through Textbook Tasks

CT dispositions such as *Truth-seeking*, *Open-mindedness*, *Analyticity*, and *Maturity* were identified in a pair-speaking task. Students were to discuss the problem of crime, factors contributing to this problem, and solutions to mitigate them according to guiding questions (Unit 6, p. 77). One of the questions, which prompted students to think of reasons people commit crimes, challenged the students' perspectives and enabled them to rethink any stereotypes they have towards individuals involved in crime. In such activities, students are given the opportunity to improve their biases and prejudices to foster the dispositions of *Truth-seeking* (Jebbour, 2019) and *Open-mindedness*. In identifying the causes, dilemmas, and ways to solve the topic, students are also able to engage *Analyticity* and *Maturity*.

The CT dispositions of *Analyticity*, *Systematicity*, *CT Self-Confidence*, and *Maturity* were displayed in another speaking task. Students were given the situation of whether their brother should wear a T-shirt he dislikes, which is a birthday gift from his favourite aunt (Unit 4, p. 51). The task needed students to analyse the situation and provide justifications for their opinions, which corresponded to *Analyticity*. By gradually asking prompt questions to understand the situation given, *Systematicity* could be practiced in which students foster the ability to comprehend a problem step by step. Finally, by allowing students to make their own decisions in solving the conflict, *CT Self-Confidence* and *Maturity* could be engaged. Students can gain confidence in improving their CT skills with trust and support from their partners, knowing that they are given the responsibility to provide advice. This would help students overcome their lack of confidence due to poor thinking abilities (Lin, 2018).

Engaging Students in Critical Thinking (CT) Activities through Textbook Tasks

The final CT element infused in the textbook was CT activities such as open-ended questions, collaborative learning, media analysis, debate, and critical writing. The only CT element out of CT skills, dispositions, and activities found in grammar tasks in the textbook was open-ended questions. For instance, the open-ended questions in one task enabled students to think about the use of gerunds and infinitives in example sentences with question words such as "how" and "why" (Unit 9, p. 113). Students then had to elaborate on that grammar usage

instead of mechanically memorising the form. This is echoed by Ghaemi and Mirsaeed (2017) where inquiry-based learning activities, including open-ended questions, improved students' CT for them to explain information meaningfully.

Two CT activities which were collaborative learning and debate can be found in a speaking task. In pairs, students were required to persuade each other on whether a world-famous athlete should earn more than a secondary school teacher (Unit 3, p. 33). While this task was not a full debate activity, there were some elements of debate as students had to convince their partners using arguments. They had to discuss topics and ideas, provide their stances, and justify them by mentioning examples. Through this exchange of opinions, students are able to acquire new knowledge from each other, therefore achieving collaborative learning (Jebbour, 2019).

Discussion

In the textbook, CT activities occurred the most with a percentage of 29.72% (159), followed by CT skills at 25.42% (136) and CT dispositions at 20% (107). The most infused CT skill was *Synthesis/construction* with 74 (13.83%) tasks, *Analyticity* with 56 (10.47%) tasks for CT dispositions, and open-ended questions with 86 (16.07%) tasks for CT activities. A pattern was observed across all three CT elements in which speaking and writing tasks, both productive language activities, contained more CT elements than reading and listening tasks, which are receptive language activities, and vocabulary and grammar tasks. The relationship between productive skills and CT skills was pointed out by Lin (2018) in which thinking tasks are supposed to stimulate and facilitate pupils' thinking, and simultaneously provide opportunities for language production.

Overall, we suggest that the amount of CT elements infused in the textbook be further improved, especially in terms of CT dispositions, which scored the lowest percentage (20%). CT dispositions should not be overlooked compared to CT skills and activities as it is essential to CT (Siegel, 1990) and significant to CT improvement (Fung & Liang, 2019). If students are expected to think critically, then nurturing dispositions towards CT is an important first step that needs to be taken.

Through the quantitative inspection of the textbook, it was found that the textbook lacked several CT elements, one of them being *Self-reflection and self-correction* as a CT skill. Reflection and self-knowledge form a crucial part of CT and present language education trends (Bağ & Gürsoy, 2021). The lack of this skill reduces the opportunity to encourage further CT among students through the textbook. Furthermore, *Inquisitiveness* as a CT disposition, and media analysis and critical writing for CT activities were not found in the textbook. When compared to Jebbour's (2019) study, the examined textbook was infused with *Inquisitiveness* and critical writing, but not media analysis. Jebbour explained that project-based learning activities in the textbook allowed for *Inquisitiveness* to occur, while critical writing involved processes such as writing drafts, and peer exchange and reviews. Regarding the lack of media analysis activities, he suggested teachers incorporate teaching materials such as newspapers to teach and increase CT awareness. The textbook can be made better by reviewing and enhancing the variety of tasks offered for CT infusion.

The qualitative analysis of the textbook revealed that the tasks were able to engage the students' CT with different language focuses. Students' CT skill of *Analysis* could mainly be facilitated through reading tasks, where they were asked to separate the text into specific components such as main ideas, opinions, supporting points, and examples while identifying the usage of each aspect and how they contribute to a coherent argument. This is supported by Nastiti's (2020) study in which reading tasks can enhance CT by finding the main idea, finding details such as explicit and implicit information within a context, constructing relevant conclusions, and so on.

Speaking tasks were most inclusive of multiple CT elements. This included CT skills such as *Evaluation*, *Inference*, and *Synthesis/construction*; all CT dispositions in the checklist (*Truth-seeking*, *Open-mindedness*, *Analyticity*, *Systematicity*, *CT Self-Confidence*, *Maturity*) except for *Inquisitiveness*; and three CT activities which were open-ended questions, collaborative learning, and debate. This is because the tasks required students to consider the advantages and disadvantages when making decisions, giving advice, or persuasion. Students were asked to discuss opinions with justifications towards diverse topics, issues, perspectives, and dilemmas, which require common sense and deep, sensible thinking. Jebbour (2019) discovered similar findings in which the textbook asked students to give their opinions on certain stereotypes and biases of cultures. Ilyas (2015) found questions asking for perspective occurring the most as CT questions in textbooks. Such tasks and activities will encourage students' CT and mature their thought processes. This also indicates that to instil CT among students, suitable content and materials must be chosen; students should be exposed to authentic, relatable (Es-Salhi & Elfatihi, 2019), timely, and often controversial, global topics (Bağ & Gürsoy, 2021) to develop CT.

Despite the scant number of listening, vocabulary, and grammar tasks that demonstrated CT elements in the textbook, they managed to stimulate students' CT with tasks such as guessing the implications of words and phrases (*Inference*) (Unit 3, p. 38), determining true or false statements (*Evaluation*) (Unit 4, p. 46), introducing students to the types of non-traditional families (*Open-mindedness*) (Unit 1, p. 5) and so on, while incorporating CT activities such as open-ended questions and collaborative work. An example was a vocabulary task that required students to identify true or false statements by categorising clothing items and technological devices (Unit 4, p. 46). This task motivated students to think and utilise the vocabulary for authentic and practical purposes. The textbook can be enhanced by incorporating similar elements into other tasks, especially grammar tasks, which recorded the least amount of CT elements. For instance, compare and contrast activities (Jebbour, 2019) can be used while including grammar items. This will enable students to practice CT while dispelling their worries that vocabulary and grammar tasks are incompatible with CT tasks and should be learnt separately (Lin, 2018).

Conclusion

Analysis of the textbook found that CT activities had the highest frequency of occurrence, followed by CT skills, and lastly CT dispositions. For CT skills, *Synthesis/construction* occurred the most. *Analyticity* was the highest occurring CT disposition, while open-ended questions had the highest infusion for CT activities. It was discovered that speaking and writing tasks, which are productive language activities, included more CT elements than reading and listening tasks, which are receptive language activities, and vocabulary and grammar tasks. As

a whole, the textbook in this study can be improved by increasing the amount of CT elements in the tasks. This is especially needed for CT dispositions, being the least infused element in the textbook. In addition, the textbook did not present certain CT elements, which were *Self-reflection and self-correction* for CT skills, *Inquisitiveness* for CT dispositions, and media analysis and critical writing for CT activities. Hence, other types of tasks that infuse more CT elements can be used to enhance the textbook.

We believe that the textbook tasks, while insufficient, can have a role in facilitating CT among students. It was found that speaking tasks contained the most types of CT elements. These tasks required students to express their opinions while being given different situations, topics, and conflicts with diverging choices, which engage deep thinking. This result bears similarities with Jebbour's (2019) study, in which the textbook asked students to respond to cultural stereotypes. The findings are also supported by Ilyas (2015) where the textbooks in his study found the most frequent questions to be asking for perspective. Improvements can be made for grammar tasks, which had the least CT elements out of all the language tasks.

There is indeed CT infusion in *English Download B1+ Student's Book* in terms of CT skills, dispositions, and activities. However, the textbook is still lacking in CT infusion; the least occurring being CT dispositions. The textbook is also insufficient of several other CT elements, and grammar tasks obtained the least CT elements. Nevertheless, the textbook tasks that consisted of CT elements could effectively engage students' CT use, despite the inadequacy in amount. Therefore, improvements can be made to the textbook for more CT opportunities to occur. It is feasible to infuse CT regardless of any type of language skill as there are a variety of tasks to be adapted. This will enable students to think critically and possess the motivation to apply CT in dynamic situations.

Future studies may be conducted on teachers and students to obtain their perceptions of different English language textbooks in facilitating CT with quantitative and qualitative approaches. It is hoped that future research will also utilise the Cambridge Assessment taxonomy (Black et al., 2008) in textbook evaluations for CT to contribute to the related literature. As a way forward, textbook and material developers can take steps to infuse more CT in English language textbooks. Lastly, it is hoped that the findings from this study can increase teachers' awareness and understanding of CT in ELT materials, serving as a springboard for teachers to actively gauge, select and adapt suitable materials for CT, and to better utilise the textbook as a resource in the classroom.

References

Adeosun, A. O. (2021). Teacher perceptions on the effectiveness of ESL textbooks in developing critical thinking in senior secondary school students in Lagos state, Nigeria. *UNILAG Journal of Curriculum and Instruction*, *2*(1), 38–56.
https://www.researchgate.net/profile/Oyebode-Oyetoro/publication/355166527_Assessment_of_the_quality_of_Literature-in-English_teachers_in_Senior_Secondary_Schools_in_Osun_State/links/616295faae47db4e57b8673f/Assessment-of-the-quality-of-Literature-in-English-teachers-in-Senior-Secondary-Schools-in-Osun-State.pdf#page=45

Bag, H. K., & Gursoy, E. (2021). The effect of critical thinking embedded English course design to the improvement of critical thinking skills of secondary school learners☆. *Thinking Skills and Creativity*, *41*, Article 100910. https://doi.org/10.1016/j.tsc.2021.100910

Bakar, N. I. A., & Ismail, H. H. (2021). Exploring vocabulary items in Malaysia year 5 English language textbook (English plus 1). *International Journal of Academic Research in Business and Social Sciences*, *11*(12), 2299–2315. https://hrmars.com/index.php/IJARBSS/article/view/11707/Exploring-Vocabulary-Items-in-Malaysia-Year-5-English-Language-Textbook-English-Plus-1

Black, B., Chislett, J., Thomson, A., Thwaites, G., & Thwaites, J. (2008). Critical thinking—A definition and taxonomy for Cambridge Assessment. *Research Matters: A Cambridge Assessment Publication*, *6*, 30–35. https://www.cambridgeassessment.org.uk/Images/480038-critical-thinking-a-definition-and-taxonomy-for-cambridge-assessment.pdf

Butler, H. A., Pentoney, C., & Bong, M. P. (2017). Predicting real-world outcomes: Critical thinking ability is a better predictor of life decisions than intelligence. *Thinking Skills and Creativity*, *25*, 38–46. https://doi.org/10.1016/j.tsc.2017.06.005

Care, E., Kim, H., Vista, A., & Anderson, K. (2018). *Education system alignment for 21st century skills: Focus on assessment*. Center for Universal Education at The Brookings Institution. https://eric.ed.gov/?id=ED592779

D'Alessio, F. A., Avolio, B. E., & Charles, V. (2019). Studying the impact of critical thinking on the academic performance of executive MBA students. *Thinking Skills and Creativity*, *31*, 275–283. https://doi.org/10.1016/j.tsc.2019.02.002

Dewey, J. (1997). *How we think*. Courier Corporation.

Es-Salhi, A., & Elfatihi, M. (2019). Evaluating critical thinking skills in Moroccan EFL textbooks: Gateway to English 2 as a case. *Higher Education of Social Science*, *17*(1), 13–22. https://doi.org/10.3968/11284

Facione, N. C., Facione, P. A., & Sanchez, C. A. (1994). Critical thinking disposition as a measure of competent clinical judgment: The development of the California critical thinking disposition inventory. *Journal of Nursing Education*, *33*(8), 345–350. https://doi.org/10.3928/0148-4834-19941001-05

Facione, P. (1990). *Critical thinking: A statement of expert consensus for purposes of educational assessment and instruction (the Delphi report)*. California Academic Press. https://philarchive.org/archive/FACCTA

Finley, A. (2021). *How college contributes to workforce success: Employer views on what matters most*. Association of American Colleges and Universities. https://eric.ed.gov/?id=ED616977

Fung, D. C.-L., & Liang, T. W. (2019). *Fostering critical thinking through collaborative group work: Insights from Hong Kong*. Springer. https://doi.org/10.1007/978-981-13-2411-6

Ghaani, M., & Pauline Roslin, V. (2021). A study on the knowledge, attitude, and practice of critical thinking skills among EFL teachers in Iran. *KURMANJ The Journal of Culture Humanities and Social Science*, *3*(2), 14–24. https://doi.org/10.47176/kurmanj.3.2.14

Ghaemi, F., & Mirsaeed, S. J. G. (2017). The impact of inquiry-based learning approach on critical thinking skill of EFL students. *EFL Journal*, *2*(2), 89–102. https://doi.org/10.21462/eflj.v2i2.38

Halpern, D. F. (1999). Teaching for critical thinking: Helping college students develop the skills and dispositions of a critical thinker. *New Directions for Teaching and Learning*, *80*, 69–74. https://doi.org/10.1002/tl.8005

Hashemi, M. R., & Ghanizadeh, A. (2012). Critical discourse analysis and critical thinking: An experimental study in an EFL context. *System*, *40*(1), 37–47. https://doi.org/10.1016/j.system.2012.01.009

Hidayat, A. R. (2019). An analysis of higher order thinking skill implementation in English reading textbook for the fifth graders of Malaysian primary school. *Journal of Research on Applied Linguistics, Language, and Language Teaching*, *2*(1), 1–7. https://doi.org/10.31002/jrlt.v2i1.377

Ilyas, H. (2015). *Critical thinking: Its representation in Indonesian ELT textbooks and education* [Doctoral dissertation, University of York]. https://etheses.whiterose.ac.uk/12688/

Jazuli, A. J. M., & Yamat, H. (2020). Challenges faced by upper primary English teachers in implementing critical thinking skills. *International Journal of Academic Research in Progressive Education and Development*, *9*(1), 39–51. https://hrmars.com/index.php/IJARPED/article/view/6875/Challenges-Faced-by-Upper-Primary-English-Teachers-in-Implementing-Critical-Thinking-Skills

Jebbour, M. (2019). Exploring the manifestation of critical thinking in the Moroccan textbooks of English: The case of 'Ticket 2 English'. *JEES (Journal of English Educators Society)*, *4*(1), 39–45. https://doi.org/10.21070/jees.v4i1.1783

Johar, N. A., & Aziz, A. A. (2019). Teachers' perceptions on using the Pulse 2 textbook. *Journal of Educational Research and Indigenous Studies*, *2*(1), 1–15. https://www.researchgate.net/publication/339458225_Teachers'_Perceptions_on_Using_the_Pulse_2_textbook

Li, X., & Liu, J. (2021). Mapping the taxonomy of critical thinking ability in EFL. *Thinking Skills and Creativity*, *41*, Article 100880. https://doi.org/10.1016/j.tsc.2021.100880

Liang, W., & Fung, D. (2021). Fostering critical thinking in English-as-a-second-language classrooms: Challenges and opportunities. *Thinking Skills and Creativity*, *39*, Article 100769. https://doi.org/10.1016/j.tsc.2020.100769

Lin, Y. (2018). *Developing critical thinking in EFL classes*. Springer. https://doi.org/10.1007/978-981-10-7784-5

Luk, J., & Lin, A. (2015). Voices without words: Doing critical literate talk in English as a second language. *TESOL Quarterly*, *49*(1), 67–91. https://doi.org/10.1002/tesq.161

McPeck, J. E. (1981). *Critical thinking and education*. St Martin's Press.

Ministry of Education Malaysia. (2013). *Malaysia education blueprint 2013-2025 (preschool to post-secondary education)*. https://www.moe.gov.my/menumedia/media-cetak/penerbitan/dasar/1207-malaysia-education-blueprint-2013-2025/file

Ministry of Education Malaysia. (2020). *Kurikulum Standard Sekolah Menengah, Dokumen Standard Kurikulum dan Pentaksiran Bahasa Inggeris Tingkatan 5* [Secondary School Standard Curriculum, Form 5 English Language Standards-based Curriculum and Assessment Document]. http://bpk.moe.gov.my/index.php/terbitan-bpk/kurikulum-sekolah-menengah/category/44-dskp-tingkatan-5

Moeiniasl, H., Taylor, L., deBraga, M., Manchanda, T., Huggon, W., & Graham, J. (2022). Assessing the critical thinking skills of English language learners in a first year psychology course. *Thinking Skills and Creativity*, *43*, Article 101004. https://doi.org/10.1016/j.tsc.2022.101004

Mustika, N., Nurkamto, J., & Suparno, S. (2020). Influence of questioning techniques in EFL classes on developing students' critical thinking skills. *International Online Journal of Education and Teaching*, *7*(1), 278–287. https://iojet.org/index.php/IOJET/article/view/774

Nastiti, A. A. (2020). An analysis of English textbook focusing on reading material to enhance students' critical thinking in recount text and narrative text. *RETAIN*, *8*(3), 69–79. https://ejournal.unesa.ac.id/index.php/retain/article/view/33967

Piedade, F., Malafaia, C., Neves, T., Loff, M., & Menezes, I. (2020). Educating critical citizens? Portuguese teachers and students' visions of critical thinking at school. *Thinking Skills and Creativity*, *37*, Article 100690. https://doi.org/10.1016/j.tsc.2020.100690

Ren, X., Tong, Y., Peng, P., & Wang, T. (2020). Critical thinking predicts academic performance beyond general cognitive ability: Evidence from adults and children. *Intelligence*, *82*, Article 101487. https://doi.org/10.1016/j.intell.2020.101487

Riazi, A. M. (2016). *The Routledge encyclopedia of research methods in applied linguistics*. Routledge. https://doi.org/10.4324/9781315656762

Siegel, H. (1990). McPeck, informal logic and the nature of critical thinking. In J. E. McPeck (Ed.), *Teaching critical thinking: Dialogue and dialectic* (pp. 75–85). Routledge.

Swartz, R. (1992). Critical thinking, the curriculum, and the problem of transfer. In D. Perkins, J. Bishop, & J. Lochhead (Eds.), *Thinking: The second international conference* (pp. 261–284). Routledge.

Tan, K. J., Ismail, Z., & Abidin, M. (2018). A comparative analysis on cognitive domain for the Malaysian primary four textbook series. *EURASIA Journal of Mathematics, Science and Technology Education*, *14*(4), 1273–1286. https://doi.org/10.29333/ejmste/82625

Terpstra-Tong, J. L. Y., & Ahmad, A. (2018). High school-university disconnect: A complex issue in Malaysia. *International Journal of Educational Management*, *32*(5), 851–865. https://doi.org/10.1108/IJEM-10-2016-0214

Thomas, K., & Lok, B. (2015). Teaching critical thinking: An operational framework. In M. Davies & R. Barnett (Eds.), *The Palgrave handbook of critical thinking in higher education* (pp. 93–105). Palgrave Macmillan. https://doi.org/10.1057/9781137378057_6

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

World Economic Forum. (2020). *The future of jobs report 2020*. http://hdl.voced.edu.au/10707/555914

Wu, Y., & Pei, Z. (2018). An investigation of critical thinking manifested in the questions of EFL textbooks for tertiary-level English majors of China. *American Journal of Education and Learning*, *3*(2), 72–84. https://doi.org/10.20448/804.3.2.72.84

Yuan, R., Liao, W., Wang, Z., Kong, J., & Zhang, Y. (2022). How do English-as-a-foreign-language (EFL) teachers perceive and engage with critical thinking: A systematic review from 2010 to 2020. *Thinking Skills and Creativity*, *43*, Article 101002. https://doi.org/10.1016/j.tsc.2022.101002

Zhang, H., Yuan, R., & He, X. (2020). Investigating university EFL teachers' perceptions of critical thinking and its teaching: Voices from China. *The Asia-Pacific Education Researcher*, *29*(5), 483–493. https://doi.org/10.1007/s40299-020-00500-6