Infusing Critical Thinking into English Coursebooks

Hamzah Puadi Ilyas
(puadi.hamzah@gmail.com/hamzahpuadi.uhamka.ac.id)

University of Muhammadiyah Prof. DR. HAMKA (UHAMKA), Jakarta

Though critical thinking has been officially written as one of educational objectives in Indonesia as written in the Regulation of the Republic of Indonesia Number 17 Year 2010 Regarding Educational Management and Administration, it seems that schoolteachers in this country still do not understand what it is and do not realise the importance of critical thinking for students and professionals of this country. This might be because there is no clear conception of what kind of critical thinking needed in education in this country, or it may be because Indonesian schoolteachers do not really know how to encourage students' critical thinking as they may be still confused with this concept as mentioned above. The latest 2013 curriculum, however, seems to have accommodated the infusion of critical thinking into school subjects, as can been seen in the adoption of Bloom's taxonomy. This article therefore attempts to argue what critical thinking can contribute to Indonesian students and people as well as proposes reading activities based on Ilyas' critical thinking framework. This framework is the result of synthesising, examining and evaluating critical thinking taxonomies, strategies, programmes and tests.

Keywords: critical thinking, critical thinking framework, Indonesian education, coursebooks

Meskipun berfikir kritis (critical thinking) telah dimasukan ke dalam salah satu tujuan pendidikan di Indonesia yang tertulis dalam Peraturan Pemerintah Nomor 17 Tahun 2010 Tentang Pengelolaan dan Administrasi Pendidikan, guru-guru sekolah di Indonesia nampaknya belum benar-benar memahami apa itu berfikir kritis dan belum menyadari pentingnya berfikir kritis bagi siswa dan professional di negeri ini. Hal ini mungkin disebabkan tidak jelasnya konsep berfikir kritis seperti apa yang dibutuhkan dunia pendidikan Indonesia, atau mungkin juga disebabkan guru yang belum mengerti bagaimana mendorong siswa berfikir kritis karena mereka sendiri belum memahami konsep berfikir kritis, seperti yang telah disebutkan di atas. Kurikulum 2013 nampaknya telah memasukan berfikir kritis, dengan diadopsinya taksonomi Bloom dalam kurikulum tersebut. Oleh karena itu

artikel ini memaparkan kontribusi berfikir kritis terhadap siswa dan professional Indonesia, juga menawarkan aktifitas membaca dengan memasukan berfikir kritis yang diambil dari kerangka berfikir kritis Ilyas. Kerangka berfikir kritis ini merupakan hasil dari sintesa, evaluasi dan telaah dua puluh taksonomi, strategi, program dan tes berfikir kritis.

INTRODUCTION

Even though critical thinking is an elusive concept, it is believed to be important in this globally changing world, in which humans' lives are bombarded with a stream of information. Not being able to be critical, people could be the victims of misleading information; they also could be manipulated easily. This may be dangerous for society and eventually threaten democracy.

Critical thinking has gained attention in education to address such issues as democracy, tolerance and independence. Besides this, critical thinking can promote deep learning as an alternative approach to what rote learning and memorisation approaches cannot provide. Many countries have included critical thinking in their educational agenda, some of which even have included critical thinking in English textbooks. China, for example, has included critical thinking in English textbooks for university students.

Indonesia has also included critical thinking as one of educational objectives. This is written in the government document: the Regulation of the Republic of Indonesia Number 17 Year 2010 Regarding Educational Management and Administration. The latest school curriculum, the 2013 curriculum, seems to have considered the importance of critical thinking though it is not clear what kind of critical thinking needed in Indonesian education. That critical thinking has gained attention in the newest curriculum can be seen from the adoption of Bloom's taxonomy; Bloom's taxonomy is claimed to be able to promote higher order thinking skills, a similar concept to critical thinking. However, there is no explicit examples for teachers how to promote students critical thinking skills or how teachers can optimise coursebooks to encourage students' critical thinking.

This article attempts to fill the gap between the educational objective and its application in the classroom regarding critical thinking, especially in the teaching of English (ELT). Very little attention has been paid to how critical thinking can be included in ELT, particularly in the Indonesian context. This article argues the benefits of critical thinking and therefore proposes how to infuse critical thinking into reading texts by providing the

examples of critical thinking questions that can be adopted and modified by Indonesian English teachers. It is expected that students can be critical when reading texts; thus, avoiding them to become the victims of texts' propaganda and help them put their own position in this ever-changing world full of 'irresponsible' information.

CRITICAL THINKING

The Importance of Critical Thinking

Critical thinking has been admitted by many authors to have a lot of benefits in various aspects of life and for people coming from different walks of life such as students and professionals (Alfaro-LeFevre, 2003; Bandman & Bandman, 1995; Brown & Rutter, 2007; Cottrell, 2011; Forshaw, 2012; Milos & Hitchcock, 2005; Sharma & Elbow, 2000). It seems to have been a favourite topic of discussion in an academic setting, along with its pros and cons. This may be because there is no agreed definition of critical thinking owing to its abstract concept. Every book presents a different definition, and every author is entitled to define its conception. However, Fisher (2008) argues that "while there may be a problem in definition, nonetheless a focus on teaching thinking has the potential to significantly improve the quality of education for all students" (p. 7).

There are some doubts whether the skills of thinking can be taught or not, but thinking process always happens in human mind in spite of no special training on the skills. All skills, whether they are difficult or not, could be taught and learned, including the skills of thinking. This is supported by Costello (2000) who argues that thinking skills can be taught to not only teenagers or adults but also children. If thinking skills can be taught to children, logically the teaching of the skills to teenagers and adult may be easier as they have more experience and more developed intelligence to reason. This is because adults "have internalized over time a greater quantity of metacognitive information" (Fisher, 2008, p. 9).

If thinking skills can be taught, critical thinking, which is part of thinking skills may also be taught. It means that critical thinking can be improved. Halpern (2014) supports this notion by citing some studies (e.g. Herrnstein, Nickerson, de Sanchez, & Swets, 1986; Van Gelder, 2001) showing that critical thinking can be improved. For example, Herrnstein, Nickerson, de Sanchez, and Swets (as cited in Halpern, 2014) report that based on the evaluation of nationwide thinking skills programme in Venezuela, students participating in the programme had better oral and written argument than those of control group.

As mentioned, many authors believe that critical thinking can have positive impacts on students when applied at school. Regarding the benefits of critical thinking, Cottrell (2011) argues that:

> Good critical thinking skills bring numerous benefits such as improved attention and observation; more focused reading; improved ability to identify the key points in a text or other message rather than becoming distracted by less important material; improved ability to respond to the appropriate points in a message; knowledge of how to get your own point across more easily; skills of analysis that you can choose to apply in a variety of situations. (p. 4).

Cottrell's argument shows the benefits of critical reading activities that are indeed an inseparable part of students' daily lives. Good reading activity is in fact not simply deciphering a text; it involves certain processes such as questioning, analysing, interpreting, concluding and commenting. In questioning a text, a reader can put in mind questions such as what the text will be about specifically or what the opinion of the writer will be. When the meaning is already understood, the reader can draw conclusion or make judgment concerning, among others things, the content of the text, the stance of the text writer, the way the writer supports his opinion, the writer's claim, the writer's argument, the importance of content to the reader's study, etc. In this process, a good reader can 'question' again through reflective period before eventually making a comment.

Those reading processes involve rational and critical thinking. Having critical reading habits or skills, whose benefits are stated by Cottrell above, can contribute towards students' academic success. Critical reading skills will also indirectly prepare students for their professional career in the future. So, it is true that critical reading skills are a must for students, especially those who are in the level of higher education as they mostly get involved with abstract concepts presented in reading texts that they have to discern. Unfortunately, a lot of students do not really understand what critical reading is (Wallace & Poulson, 2005). That's why the skills should be taught even in early education (Costello, 200).

Apart from students, people can also get benefits of critical thinking mentioned above inasmuch as reading does not solely belong to the students. A homemaker, for instance, who is fond of reading fiction can get the benefits as well. She can judge whether the book is good or not by finding out the consistency of characters presented in it. She can know the moral messages conveyed by the author. She can criticize why the characters in the book behave not

like the real human being, for example. She can say that the story intentionally discredits a certain party and the writer's discredit is actually wrong. She can also say that the description of certain location in the book is not really proper if she happens to know the location exactly. Finishing reading the book, she can conclude that it is worth recommending or not. As a result, reading is not only a static process. Reading activities will be more enjoyable and meaningful (Costello, 2000).

One question arising is whether critical thinking itself can automatically make students good readers with the qualities mentioned by Cottrell above. For example, will students be guaranteed to have an improved ability to respond to the appropriate points in a message without certain characteristics inside themselves? What Cottrell states is actually a skill, and there must be some other factors that can make students possess the ability. There are other characteristics such as motivation or determination that may also be influential. Motivation, together with the student's intellectual development, is an influential factor to possess the skill.

Another point that sounds good but difficult to obtain from Cottrell's argument is 'skills of analysis that you can choose to apply in a variety of situations'. It is good news because problems come to a human being anytime and anywhere, so they need a smart, rational and intelligent solution, otherwise the decision taken is not satisfactory. Nonetheless, the analysis skills are not as easy as turning the hand palm. The skills may be easy to teach, but the result is unpredictable. There are some factors that influence the successful transfer of knowledge or skills such as student, teacher and condition. From a student's point of view, for example, to get the skills, again he needs to have motivation and to practice the skills. When he practices the skills, he gradually internalizes the skills that will become part of his life. Teacher also plays an important role in making the students have skills of analysis. For example, does the teacher present clearly, give enough exercises to students, encourage students' curiosity, or facilitate the learning process well? Those factors, together with other conditions, contribute to the success of skills of analysis.

The reasons mentioned above also prove that mastering critical thinking skills needs some other factors. The one that is very influential is motivation or determination. Motivation must always be existent in any human's endeavour. In short, to achieve the skills mentioned by Cottrell above needs certain characteristics within a human being. After all, the critical thinking skills can be learned and taught, and they are indeed important for everybody as they give various benefits.

Another opinion highlighting the benefits of critical thinking for students is presented by Judge, Jones, and McCreery (2009) who state:

> Some of the most important skills you will need to learn as an education students are the ability to think both critically and objectively about an issue and present a well-constructed argument. Critical and analytical thinking skills such as these will be essential to most aspects of your study, whether you are listening to lectures, contributing to seminars or reading about your subject. (p. 4)

What does Judge et al. mean by 'think both critically and objectively about an issue'? The word critical could mean using cognitive, rational and intelligence, while objective means it is always based on real facts and not influenced by personal beliefs or feelings to avoid personal bias. Why this is important for students is because they will and have to present the argument of an issue. The argument that is built not based on critical and objective thinking will not be convincing at all as it will miss the point.

Judge et al. (2009) also put forward an interesting sentence that states the skills are very important for students to get involved in learning process. Let's take 'reading about student's subject' as stated by Judge et al. (2009) as an example. When a student reads an article written in a well-known journal about a certain topic, he will not directly agree, but there will be some questions circling in his mind such as 'Is the author's opinion true?', 'Should I believe with what the author has said?', 'What supports does the author use to build his argument?', 'Are the supports the author use still arguable?' etc. After that the student will take a reflective moment and comments such as 'Wait, I think what the author has said does not make sense to me', 'I still doubt his opinion because…' etc. will emerge. Then the student can make a decision. These activities absolutely involve the learning processes.

The definition presented by Judge at al. (2009) also put the term 'objective'. Even though objective means free from personal feelings and beliefs, it cannot guarantee that the decision made is fully free from personal bias. Similarly, the decision taken by the student regarding the subject he has read will also involve his personal beliefs a little. People who practice critical thinking must be aware of this tendency. That's why Judge at al. (2009) go on to say that in critical thinking people must also have "the ability to be honest about your own biases and prejudices, flexible in considering alternatives and opinions, and willing to consider and revise views where honest reflection suggests that change is warranted" (p.4).

Students, who get involved in an academic setting, must realize this. They must be open to criticism and different opinion. They must realize that there will always be differences in any aspect of human life, and being different is not always bad. If the students are aware of this and keep this attitude in their whole life, it is expected that they will be a more responsible citizen. That is one of the reasons why critical thinking must be taught at school and included in every school subject.

Knowing the benefits of critical thinking skills, when is the proper time to start teaching the skills? Is it when people start secondary school or when they start higher education? As mentioned, Costello (2000) argues that thinking skills can actually be taught to children, so we can start teaching the skills at primary education. Costello did classroom-based research on teaching thinking skills at early childhood education for his doctoral thesis and reported satisfactory results. He argues against common beliefs that say philosophy is difficult subject to study and the nature of philosophical literature is beyond the understanding of young children. Up to this point, Costello's idea makes sense for two reasons. Firstly, if we can teach mathematics or astronomy to children at primary school, we surely can teach thinking skills to them. Secondly, is 'thinking skills' a completely difficult thing so that it cannot be made simple and adjusted to children's mind? The idea seems doubtful since mathematics, which could be considered difficult, can be taught to children, so can critical thinking.

In countering the argument saying that philosophy is difficult subject to study and the nature of philosophical literature is beyond the understanding of young children, Costello (2000) states:

> In my view, none of the reasons outlined above is sufficient to warrant the exclusion of young children from the discussion of philosophical problem. Indeed, I would argue that exposure to the skills of critical thinking and reasoning at an early age is essential if children are to cultivate those reflective habits which are crucial to their future lives as citizens in a democracy. To begin this process only at a university or other higher education institution is to arrest children's intellectual development and to imply that 'education for citizenship' is simply an exercise in indoctrination. (p. 47)

Interesting points of Costello's argument are reflective habits are crucial to children's future life as citizens in a democracy, and starting teaching thinking skills at higher institution

will arrest children's intellectual development. The phrase 'reflective habits' is very interesting. As mentioned above, reflection - for a student at higher institution - is needed to see his stance or view on the academic article he was reading, for example. This is the moment when he is in deeply careful thinking before deciding or making action. In every day's life, when this becomes the habit, he can perform well in a democratic society due to his objective position. A person who has no reflective habit might be an intolerant one and easy to blame others.

When thinking skills start to be introduced to children, this could be a habit until they learn at higher institution. Eventually, they are expected to be a scholar who can accept differences to find the truth. They could be a person who respects other people in terms of opinion, social status and belief. Even they could be a person who keeps learning to improve the quality of themselves as a human being. Finally, "omitting to offer children explicit teaching which is aimed at fostering their thinking and valuing processes, may have serious implications for their academic achievement" (Costello, 2000, p. 47). An idea of introducing critical thinking skills in education starting from early education as proposed by Costello is a good idea.

Apart from the benefits of critical thinking for students, professionals can benefit from the thinking skills as well. Cottrell (2004) argues that "skills in critical thinking bring precision to the way you think and work. You will find that practice in critical thinking helps you to be more accurate and specific in noting what is relevant and what is not" (p. 4). Cottrell's argument seems astonishing, and there is a possibility that it happens in the real world. Working world is imbued with decision making that needs critical thinking skills.

There are some reasons why critical thinking can make someone more accurate and specific. First of all, it starts when someone is still a student. Since he is engaged in critical thinking processes as having been mentioned by Cottrell such as improving ability to identify the key points in a text or other message rather than becoming distracted by less important material and improving ability to respond to the appropriate points in a message, he will be accustomed to accuracy and specification. There is the process of habit formation. Then the habit gradually will be part of his character when he lands a job.

Nowadays, almost all fields need critical thinking skills. For example, professionals in the field of social work, according to Brown and Rutter (2007), also need critical thinking skills. Again, this is related to the decision making. It is clear that the processes in critical thinking such as observation, question, evaluation and reflection become the foundation of

making a decision that is crucial for professionals. With respect to critical thinking skills for professionals in social work, Brown and Rutter (2007) state that "social work as a profession has always demanded critical abilities and qualities from its practitioners because decisions have to be made 'on the spot' and under pressure" (p. xii).

The fact that professionals in the field of social work often have to take decisions quickly becomes the reason why they need critical thinking skills (Brown & Rutter, 2007). One possible alternative to make better decision is through critical thinking in which information coming must be observed and questioned critically and intellectually. Then it is evaluated before a person performs a reflective thought. Finally, intelligent decision is made. Brown and Rutter (2007) go on to say that "…developing critical abilities within the social work arena can also enhance learning and development and there is potential to progress your own style of critical professional thinking" (p. xi).

What Brown and Rutter (2007) say that critical abilities can enhance learning and development also applies equally to other professional fields. This is because learning and development is an inseparable part of human's lives. To make the most of learning and development, a human must be able to think critically. Thinking is actually a human's responsibility; unavoidably, a human has to think. Stopping thinking could mean the end of life because learning and development will also stop.

Everybody is different indeed, and even though a group of people, for example, is taught how to think critically by the same teacher in the same classroom, they will surely develop their own creativity. This creativity is celebrated by Forshaw (2012) commenting on the role of critical thinking in the field of psychology. Forshaw (2012) states that "good critical thinking can be creative: it's all about putting ideas together in new ways and making us think of things we didn't think before" (p. 3).

We can see that there are various benefits if critical thinking is introduced to students. They can be successful in the academic journey, and critical thinking can equip them to be individuals who can compete in future lives when becoming professionals. Since critical thinking bring some benefits to people, its inclusion in school subjects of all levels of education is worth trying.

Concerns for Lack of Critical Thinking in Indonesian Education
Even though many authors have believed and shown that critical thinking can bring benefits to students, the teaching of critical thinking does not seem to be widely implemented in

Indonesian education. Indonesian students therefore are likely to lack critical thinking. Some Indonesian academics (e.g. Alwasilah, 2002; Nugroho, 2008; Syofyan, 2012) have voiced their concerns regarding this. Alwasilah (2002) states:

> Realizing that our students have been left behind compared to their counterparts in other Asian countries, we need to update ways of teaching both national and foreign languages at all level of education, from elementary to university. Language teaching at present should be aimed at meeting global challenges. In the final analysis, though, basic to success in global competition is the mastery of critical thinking.

It is almost impossible for young Indonesians to be successful in the competition of global job market without critical thinking. Alwasilah's opinion is reasonable since people who hold decision-making position in a company must always think to find ways of becoming a market leader. People with poor critical thinking will not win. Lack of critical thinking in education might be what is happening in Indonesia. That causes Indonesia can only send domestic, not professional, employees whose number reach more than 10 million people (Krismantari, 2012). Conversely, rote learning - not critical thinking - is still widely adopted in Indonesian education. Nugroho (2008) points out:

> For decades education in Indonesia has been dominated by teacher-centred instruction and rote learning. I remember very well what my teacher would do in her history class while I was in junior high school. She would come into the classroom, sit down and begin to lecture. All students would sit, listen to the lecture and take notes. The teacher would also ask her students to memorize all names of the ministers who had assumed office in the Cabinet. Another teacher required students to be able to name the cities where the National Sports Week had been held, including the dates and years they took place. These examples are perhaps commonplace in most Indonesian classrooms even today.

That is why Syofyan (2012) comments that "…we must move away from 'rote learning' (a memorization technique based on repetition) so that our youth do not form rigid mind-sets."

The condition like this is found in all formal schools all over Indonesia (Balfas, 2008). As a result, most Indonesian students are not accustomed to giving comment on the pieces of writing they have read, stating opinion to a problem, or analysing reading passages critically. They are mostly not creative and still left behind by their peers even in Asian countries

(Megawangi, 2007; Yusuf, 2006). Up to now, this seems to still exist in Indonesian education.

Apart from having low reading skills, Indonesian students' writing skills are also not very satisfactory. Imran (as cited by Syaifudin & Utami, 2011) reports that Indonesian students have very low writing skills. Syaifudin and Utami (2011) go on to say that:

> *Hasil penelitian itu menyebutkan bahwa kemampuan menulis siswa Indonesia paling rendah di Asia. Padahal pembelajaran menulis diberikan mulai pendidikan dasar hingga pendidikan tinggi. Hasil ini menunjukkan bahwa berpikir kritis siswa masih rendah pula. Ini disebabkan adanya hubungan berbanding lurus antara menulis (terutama menulis argumentasi) dengan berpikir kritis siswa. (p. 66)*

> The result of the research shows that writing ability of Indonesian students are the lowest in Asia, whereas writing lessons are taught starting from elementary school to higher education. The result shows that students' critical thinking is also low. This is because there is direct relation between writing (especially argumentative writing) and students' critical thinking skills. (p. 66)

Indonesian students cannot be blamed for their lack of critical thinking. This may happen because teachers do not teach them critical thinking. Why teachers do not teach them critical thinking may be because they were not taught how to be critical during their education. As a result, they are less creative and innovative in teaching. They tend to rely on textbook, not challenging students' curiosity. The research conducted by Direktorat Dikmenum (The Directorate of General Secondary Education) of The Indonesian Ministry of Education and Culture in 1996-1997 shows that the teaching process at secondary schools tends to be textbook oriented that is not related to students' daily lives (Balfas, 2008). Though the research was conducted almost 18 years ago, the present condition does not seem really different.

That critical thinking is not popular to most school teachers in Indonesia is also supported by another study. A study by Ajisuksmo and Vermunt (as cited in Soeherman, 2010) reported that educational settings in the country are dominated by teacher's lectures and students' memorization to pass the examination. Even in higher education Soeherman (2010) contends that "there is no specific course called 'critical thinking,' yet the content of some courses, such as research methodology classes, may indirectly develop critical thinking

ability. Nevertheless, teaching methodologies applied in these classes are not intentionally structured to foster students' critical thinking skills" (p. 5).

As mentioned, rote learning and memorization that are widely adopted in teaching and learning approaches in Indonesia are actually not bad. In learning a foreign language, for instance, memorization is one of good strategies to remember words, phrases, collocations, or tenses. Yet, those vocabularies will not be internalized if they are not used in writing and speaking. Students should not only be asked to parrot words or memorize facts from reading passages but also be encouraged to discuss the reading passages and give comments both in spoken and written language. Students should be given an opportunity to think and taught how to think critically to respond to something that comes into their mind. Memorization makes people tend to accept something without criticizing it, and it is not really supportive in learning. Therefore, critical thinking should be added in the teaching process to counter weaknesses memorization learning strategy has. Related to this, Richmond (2007) states:

> The educational methods commonly used in developing countries,
> particularly rote learning by students expected to be passive recipients
> of knowledge, are mostly ineffective at training professionals to think
> critically and creatively about the development needs of their nations.
> Whether mathematical formulae or facts are memorised, parrot-
> learned material lacks practical applications without an ability to place
> it in the context of local environments, where social and economic
> systems and priorities, finances, and managerial and political practices
> may be anything other than that outlined in the textbook. (p.1)

The doubt about most school teachers, even university lecturers, in Indonesia do not apply critical thinking in their teaching is supported by Hatmanto, the head of English Department at Muhammadiyah University of Yogyakarta, Indonesia. During opening remarks on the seminar taking theme "Constructivism Theory in Teaching Method for Teachers and Lecturers", Hatmanto (2011) states that:

> *Selama ini metode pengajaran yang diberikan seorang dosen maupun*
> *guru masih menggunakan pendekatan konvensional dengan metode*
> *pengajaran repetisi atau pengulangan. Metode ini alhasil*
> *menyebabkan pendidikan dan penguasaan materi yang diajarkan*
> *kurang maksimal dan siswa juga kurang bisa berfikir kritis.*

> All this time, teachers and lecturers still teach conventionally by using repetitive method. This method makes education and materials mastery less maximal and makes students lack critical thinking.

The studies, along with the opinion of some educators, having been mentioned above are concerned with no critical thinking teaching in Indonesian education and lack of critical thinking understanding among Indonesian school teachers. Since critical thinking bring many benefits, its serious implementation in Indonesian education needs considering.

Critical Thinking and the Teaching of English as a Foreign Language

With critical thinking gaining its popularity in education, the field of teaching English as a foreign language (TEFL) has also started to adopt it. Though there is criticism stating that critical thinking may not be successful in TEFL as it is a Western concept and could be problematic when applied in non-Western countries, many authors (e.g. Beaumont, 2010; Benesch, 1999; Davidson, 1998; Hawkins, 1998) challenge this criticism, and some studies (e.g. Barjesteh, Alipour, & Vaseghi, 2013; Daud & Husin, 2004; Hashemi & Ghanizadeh, 2012; Huang, 2012) have proved that infusing critical thinking into TEFL is successful.

Huang (2012), for example, did a qualitative study by exploring "students' writing practices when a critical literacy perspective is incorporated and considers the implication for the EFL curriculum" (p. 284). The 20 participants were students at a university in Taiwan and had taken general English course for one year. The data being generated in the study were students' research papers, reflection papers, writer's autobiographies and researcher/teacher journal and notes. In this study the researcher acted as the teacher. In analysing the data, Huang (2012) read the data several times. The data of each student were organised into a file, and they were coded "for the ways in which they positioned themselves in relation to the themes and the research focus they chose, how they made sense of the knowledge they gained from the literature, and how they understood the social significance and implications of the research topics and findings" (p. 286). Huang compared the codes, looked for pattern of critical/uncritical engagement in the writing and generated broad themes explaining students' critical disposition.

In this study, Huang (2012) assigned students to write a research paper which was divided into four assignments: background and research question, literature review, argument & critique and conclusion. In every stage, students were asked to be critical. For example, in

the first assignment students were asked to explain the choice of theme and reasons of research focus, while in argument and critique assignment, students were asked to argue their point of view based on the findings from literature review. Several themes for the research paper writing such as advertisement, gender, global warming, child labour, global economy, global warming and popular culture were proposed, and for the first three weeks Huang dealt with students' understanding of critical research and choice of theme/topic. The articles about the themes were discussed in the classroom. The students were also asked to present after each assignment, and individual consultation was facilitated.

The data analysis generated three themes informing the students' critical disposition: writing as the intersection of self and world, writing for purposes of knowledge transformation and knowledge creation, and the writer as socially relevant and locally/globally involved. With regard to the first theme, Huang (2012) writes:

> Through the research-based writing, these students examined issues
> that speak to marginalised groups in society (e.g. child labour) as well
> as those that concern social relations (e.g. advertisement) and human
> rights (e.g. same sex marriages). They also employed research writing
> as a way to explore their own roles in relation to a worldwide problem
> (e.g. global warming). In other words, when an explicit connection is
> made between writing and social issues, students were able to
> construct themselves as writers who use English literacy to assert their
> membership and participation in the global village and thus cross the
> boundaries of the classroom into the broader world. (p. 291-292).

In relation to the second theme, Huang (2012) informs that the students' writing showed "their ability to reconceptualise their own understanding and societal assumptions of an issue" (p. 292). For example, one student who chose the theme of gender was able to see the debate on the same sex marriage in which those against the marriage always used degradation of familial values, HIV, the interruption of constitutional marriage and the neglect of children rights as the argument. The student, as reported by Huang (2012), argued that this was because people were usually concerned about maintaining their status quo.

The study conducted by Huang (2012) seems innovative in which she incorporated critical literacy pedagogy to find out its impact on the students' writing a research paper. Two factors that may contribute to the students' critical disposition are the discussion processes of

themes (advertisement, child labour, gender, etc.) and the progressive stages through individual consultation in making students understand how to write a critical research paper.

Huang (2012) reports that 16 out of 20 students produced research papers which reflected a critical orientation. Even though the study did not inform the criteria for differentiating between critical and uncritical writing, the quotes of students' works provided reveal that critical literacy pedagogy is able to promote students' critical thinking. Therefore, Huang's (2012) conclusion stating that "the study has demonstrated the potential of critical literacy for EFL (English as a Foreign Language) curriculum" (p. 296) can be accepted, and infusing critical thinking into EFL should be possible.

CRITICAL THINKING AND ENGLISH COURSEBOOKS

Critical Thinking Framework

As mentioned, there is no agreed definition of critical thinking. Each critical thinking book proposes different definition and conception of critical thinking. This also happens to critical thinking frameworks or taxonomies. In fact, many authors have proposed critical thinking frameworks that can be used in education; however, their frameworks seem incomplete to explore critical thinking skills in school subjects, including EFL. Besides, some critical thinking taxonomies lack explicit examples when applied in education. Take Bloom's taxonomy as an example. Bloom's taxonomy is widely believed to be able to promote students' critical thinking, especially higher stages such as analysis and evaluation. However, those stages lack explicitness, and though some authors have added verbs to the stages, some verbs overlap. Besides this, there are no examples of using the verbs in each stage.

Ilyas' (2015) framework of critical thinking can be an alternative. The framework was constructed by synthesising, examining and evaluating 20 critical thinking taxonomies, programmes, strategies and test. The critical thinking strategies examined and evaluated were from six empirical studies which infused critical thinking into EFL (Dantas-Whitney, 2002; Daud & Husin, 2004; Davidson & Dunham, 1997; Park, 2011; Shahini & Riazi, 2011; Yang & Gamble, 2013). Ilyas' framework of critical thinking therefore can be used in exploring students' critical thinking in the teaching of English as a foreign language and possibly in other school subjects.

Table 1: Ilyas' framework of critical thinking

Clarification
Assumptions
Reasons and Evidence
Viewpoints or Perspectives
Implication, Consequences and Alternatives
Question
Predictions
Agreement and Disagreement
Summary and Conclusion

Infusing Critical Thinking into Reading Texts

Critical reading, which is an integral concept of critical thinking, can be implemented in the EFL classroom. Applying critical thinking to reading texts not only promotes reading comprehension skills but also encourages students' independence in analysing and criticising the texts, thus avoiding them to become the victims of text propaganda.

Infusing Ilyas' framework of critical thinking into reading texts in English coursebooks can be done by generating additional questions asking clarification, assumptions, reasons & evidence, viewpoints or perspectives, implication, consequences & alternatives, question, predictions, agreement & disagreement, and summary & conclusion. 'Additional questions' here means questions that complement original questions in the coursebooks, which may not promote students' critical thinking. In practice, original questions provided by the textbook writer(s) can be used as a scaffold before moving to critical thinking activities.

Questions asking clarification can be the ones asking students to clarify words, phrases, or sentences. Other questions can ask students to clarify the text writer's intention or clarify the message the writer wants to convey. Questions about assumption can ask students to find out what the writer or a paragraph assumes. Regarding reasons and evidence, students can be asked to find out reasons or evidence the writer provides to support his claim, for example. This can be followed by questions asking students to provide alternatives instead of the ones proposed by the writer.

Students can also be asked to predict what will happen if, for example, the solution proposed by the text writer is not implemented or fails. Again, in this stage students can be asked to propose their own alternatives or to give their own perspectives. This can encourage them to express their opinion, at the same time applying the questions about viewpoints or perspectives.

Regarding agreement and disagreement, students can be asked to support why they agree or disagree with the text writer, for example. If the writer does not summarise his article, students can be asked to summarise or conclude the article and comment on it. Finally, students can be asked to present their evaluation of the article.

The infusion of Ilyas' critical thinking framework into the reading text can be found in the appendix. The text was taken from the English textbook's 2006 curriculum *Developing English Competencies: Natural and Social Study Programme* grade 11 of senior secondary school; the reading text titled 'The Importance of Rainforest' on page 65 was chosen since the topic seem suitable for promoting critical thinking. The questions provided in the textbook do not seem to optimise students' critical thinking skills. For example, one of the questions in the True/False section asks 'Rainforests are unimportant to our life on Earth (sic).' Reading the statement, it is easy to say that it is false without reading the text because rainforest must be important for us. The examples of critical thinking questions in the appendix are not rigid; teachers can modify and vary the questions based on the critical thinking framework.

CONCLUSIONS

Critical thinking has been fashionable in education. It may answer the problems approaches in education such as rote learning cannot solve. Furthermore, critical thinking is a skill needed in this globally changing world in which competitions grow ever more impressive and a stream of information cannot be resisted. People lack of critical thinking could be the victims of propaganda and may be easily manipulated.

Though critical thinking has been included as one of educational objectives in Indonesia, it is not clear what kind of critical thinking needed in education in this country. Many Indonesian schoolteachers do not seem to know how to promote students' critical thinking skills by optimising coursebooks or textbooks provided freely by the Ministry of National Education. This might be due to no clear directives by the authority in this regard, or

this may be because the critical thinking tradition is not strong in Indonesian education. Possibly, this could be both.

Several critical thinking frameworks/taxonomies attempt to help teachers encourage students' critical thinking skills. Few of them lack explicit examples for teachers like Bloom's taxonomy, while the majority of them seem to overlap. Ilyas' critical thinking framework, which was the result of synthesising, examining and evaluating twenty critical thinking taxonomies, strategies, programmes and tests, has come up to fill the gap. The framework can be used in the field of ELT as it examined and evaluated empirical studies infusing critical thinking into this field.

The critical thinking questions adopted from Ilyas' critical thinking framework provided in this article are the examples how teachers can promote critical thinking in the classroom. In practice, they can vary the questions adjusted to the students' level of education. The questions may be able to promote students' critical thinking skills; however, further investigation needs to be conducted.

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APPENDIX

The Importance of Rainforests

Rainforests are one of the most complicated environments on Earth. They are recognised worldwide as containing the richest source of plants and animals and are believed to contain nearly three-quarters of all the varieties of life on Earth. This is remarkable because rainforests cover only about six per cent of the Earth's land surface.

Rainforest are the oldest major ecosystem, having survived climate changes for more than one million years. They provide habitats for more species of plants, animals, insects and birds than any other environment found on our planet. Scientists estimate that between 60 and 90 per cent of all species of life are to be found in rain forests. Unfortunately, the widespread destruction of many of the world's rainforests has caused a significant decline in the number of plant and animal species on Earth.

Rainforests influence both our local and global climates. For example, between 50 and 80 per cent of the moisture in the air above rainforests comes from the rainforest's trees. If large areas of these lush rainforests are cleared, the average rainfall in the area will drop.

Eventually, the area's climate will get hotter and drier. This process could convert rainforests into a sparse grassland or desert.

Rainforests are also able to absorb over 90 per cent of the rainfall in their leaves and mosses. By doing this, they are able to slow down water run-off by gradually releasing the water over time into streams and rivers. This helps to control soil erosion and flooding.

Rainforests are vital to the Earth in helping to recycle carbon and oxygen. Carbon dioxide (CO2) is the gas put into the air globally by humans, mainly by the burning of fossil fuels (for example in cars and factories). Rainforests are able to remove carbon dioxide from the air and return oxygen in its place. This is why our global rainforests are often called the Earth's 'lungs'.

Rainforests are major producers of the Earth's oxygen. In fact, scientists believe that nearly 50 per cent of the Earth's oxygen is produced by rainforest in the Amazon region alone. Nearly 40 per cent of the world's carbon is contained in the trees of the rainforests. As rainforests are cut down and burned, carbon dioxide is released into the Earth's atmosphere. Eventually, as this gas builds up the atmosphere, leading to what scientists call the enhanced greenhouse effect.

To sum up, the role of the rainforest is essential for human life. It creates equilibrium in our environment and its resources are significant for human beings' survival.

Some examples of questions promoting students critical thinking skills based on Ilyas' critical thinking framework:

1. Questions about clarification: *What does the writer mean by 'equilibrium' in the last paragraph? What does 'Rainforest are the oldest major ecosystem' mean? What does 'a significant decline' on paragraph two mean? What does the word 'remarkable' on paragraph one mean?*

2. Questions about assumption: *What does the writer assume that 'Rainforests are one of the most complicated environments on Earth'? What does the writer assume by saying that rainforest is called the Earth's lung? What do you assume based on the information of paragraph two?*

3. Questions about reason and evidence: *What evidence did the writer give to support his/her opinion that 'Rainforests influence both our local and global climates' on paragraph three? Is the evidence provided strong enough to support his/her opinion? What evidence do you think the writer still need to include in the text? Do you believe in what the writer has written in the text? Why?*

4. Questions about viewpoints/perspectives: *What is your opinion about rainforest? Why is it important to keep the existence of rainforests? What are some ways to keep rainforests from declining? What information would you add if you were the text writer? Why? In general, what do you think of this text?*

5. Questions about implication, consequences and alternatives: *What are the consequences if rainforests keep declining? What does the writer imply from paragraph 5? What are the impacts of greenhouse effects? What does the text imply?*

6. Questions about question: *What questions are you going to ask to the text writer about rainforest? What questions in number 3 above ask you to do?*

7. Questions about prediction: *Can you predict what will happen if people do not preserve rainforest seriously? What will happen to rainforest in Indonesia 20 years from now?*

8. Questions about agreement/disagreement: *Do you agree/disagree with the writer? Why? Do you agree with the statement saying that rainforests influence both our local and global climates? Why? Is there information from the text that you disagree? Why?*

9. Questions about summary and conclusion: *Does the text provide a summary? Why/Why not? Can you summary the text? What do you conclude from the text? Can you make a conclusion in one sentence stating the importance of rainforest?*