Challenging the Status Quo: Critical Thinking Skills Integration in the EFL Curriculum of Young Learners

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Abstract

This study aimed to explore the level of critical thinking skills integrated into the tasks of the Omani English language curriculum of young learners. The study implemented a content analysis checklist that was based on the six critical thinking skills which were agreed upon by a group of international critical thinking experts and declared in the Delphi Report that was published by the American Philosophical Association (APA). The two textbooks of grade four, second semester (4B) beside the Teacher's Book, were utilized as the sample of this analysis. Results of the study showed a low level of critical thinking skills integrated into the tasks of these textbooks as these tasks made up only (35.55%) of all the tasks in the textbooks. In addition, the *self-examination subs*kill was highly represented compared with the other critical thinking subskills (20. 81%). Moreover, results showed that four of the critical thinking subskills (*detecting arguments, analyzing arguments, presenting arguments, and self-correction*) were absent from the tasks of both textbooks. Based on these findings several implications were addressed.

Keywords: critical thinking, critical thinking skills, critical thinking integration, Oman, content analysis, textbooks

1. Introduction

According to the United Nations Convention on the Rights of the Child, children have the right to be provided with "an education that enables [them] to fulfil their potential" (Save the Children, n.d.). Due to the worldwide accelerating growth on different levels—the technical, industrial, scientific, economic, etc.—, securing this right has obligated educational systems to rethink their agendas and reform their educational approaches so they can meet the demands of this era and provide the individuals with the required life skills for both their academic and their vocational success. One of the skills that cannot be dismissed or ignored in the 21st century is critical thinking, which has gained a great deal of attention at all levels. As individuals nowadays get access to massive amounts of information worldwide, the need for developing critical thinkers who can assess information, analyze data, evaluate resources, and make informed decisions has become a necessity. There is a strong consensus across all disciplines that critical thinking is a crucial element in any current educational system. In fact, fostering students' critical thinking skills should be the primary educational goal and should be central "to the design and implementation of the curriculum and educational policy" (Bailin & Siegel, 2002, p. 88).

Nurturing one's critical thinking skills is a long-term process that can be achieved through practice and continuous involvement in contexts that require complex thinking. To many critical thinking authors and researchers, critical thinking development should take place in the early years of the individual's educational process. Although some researchers, who were influenced by Piagetian work on children's cognitive development, hold the belief that teaching critical thinking to young children is inapplicable and that children in the early stages of development are unable to perform formal operations which are necessary for critical thinking (Kennedy et al., 1991), critical thinking literature provides evidence that "there is a place for critical thinking" in the early stages and children just like adults, can engage in complex levels of thinking (Lai, 2011, p. 23). However, developing lifelong critical thinkers requires initiating them in environments conducive to critical thinking practices from the early years of education (Aizikovitsh-Udi, 2015) since one cannot automatically become a critical thinker only because he enters adulthood (Daniel & Auriac, 2011). Hence, because young learners are not born with critical thinking skills, they need to be trained and prepared to think critically throughout their educational journey (Halpern, 2002 & Kenney, 2013).

Although the development of critical thinking skills is ideally dependent on teachers' abilities and qualifications to instil such skills, textbooks implemented in the curriculum play a key role in this process. As a main representative of the curriculum, textbooks can reflect the agendas and attitudes of their developers. In terms of critical thinking, the type of tasks and activities included in the textbooks can provide a partial picture of the level of critical thinking integration in the curriculum, which, subsequently, communicates the extent to which critical thinking development is being considered. Asking children to classify objects according to their shapes and colours, presenting them with problems, or situations in which two solutions can be equally valid, or asking children to consider some choices, evaluate them and justify their choice, are examples of tasks that are capable of developing children's critical thinking abilities (Aizikovitsh-Udi, 2015). Therefore, to ensure successful integration of critical thinking in these textbooks, a serious re-examination and revisiting of their tasks become necessary.

In Oman, the educational system noticed universal attention given to critical thinking and the role it plays in the individual's civil and academic success. Therefore, on the theoretical level, critical thinking has become one of the educational principles listed in the Philosophy of Education document, which is considered the main reference for the Sultanate's educational policy-making. It was stated there that the development of higher-order thinking skills (HOTS) is targeted by providing "learning environments that stimulate thinking, exploration, researching and innovating." "Research, inference, and investigation" are, similarly, among the primary skills that the philosophy endeavours to reinforce in Omani students (Oman Education Council, 2017, p. 26). In addition, the English Language Curriculum Framework (ELCF), which reflects the English language teaching policy in the country, considers the development of student's critical thinking and higher-order thinking skills (HOTS) one of the general objectives of the educational system in Oman.

However, this emphasis of the policymakers on critical thinking skills seems to not exceed the theoretical level. That is because, on the implementation level, facts seem to be disappointing. The studies that investigated the level of the Omani students' command of critical thinking skills revealed that the Omani students, at the tertiary level lack the basic level of critical thinking skills. For instance, in the study conducted by Neisler et al. (2016), the scores of the students at the Sultan Qaboos University (the institution that accepts the country's highest achievers in the Diploma certificate- Completion of high school) in the California Critical Thinking Skills Test (CCTST) were found to be "below that of the entry-level scores of most of their international peers" (p.13). In the same context, Al-Mahrooqi and Denman (2020) employed an adapted version of the Cornell Class-Reasoning Test, Form X to assess Foundation program students in five critical thinking principles. The findings indicated that students had either failed to master or had neither mastered nor failed to master the five assessed principles.

This mismatch between the official statements, which appeared to give a good level of attention to critical thinking development, and students' low levels of critical thinking skills has directed researchers' attention to the earlier stages of education (the school level). EFL curriculum, as one example of the different curricula developed by the MOE, was investigated and analyzed in terms of its alignment with the MOE's declared interest in promoting students' critical thinking skills. For instance, Al Rujaibi and Al Busaidi (2017) conducted a study to identify the types of reading activities present in Grades 11 and 12 textbooks and the number of critical thinking skills they have. The study revealed that most of the reading texts are of the expository type and that the lower-order thinking skills are predominant in the reading texts compared to higher-order skills. Another content analysis study was conducted by Al Wahaibi et al. (2018). Grade 6 and Grade 10 textbooks were analyzed and compared to discern the extent to which their writing activities, respectively, develop critical thinking skills. The researchers concluded that the Grade 6 textbook lacked critical thinking components compared to the Grade 10 textbook, with only 20% of the activities dealing with higher-order thinking levels. In brief, these studies revealed that the MOE principles regarding critical thinking development are not well-communicated by its implemented curriculum in those grades, which indicates a disparity between the MOE objectives and the expected outcomes.

Despite the remarkable conclusions the previous studies have added to the Omani critical thinking literature, these investigations are still lacking. The available critical thinking investigations have been limited to the EFL curriculum of the upper grades (grades 6, 10, 11 and 12). The international emphasis on the necessity of introducing critical thinking in the early stages of education makes investigating the level of incorporating critical thinking into the curriculum presented to young learners educationally imperative (Burke et al., 2007). However, studies that examine the level of critical thinking representation in the EFL textbooks of the earlier grades, which have a parallel, if not more, serious influence on the students' cognitive development are missed from the Omani critical thinking literature. To the best of the researchers' knowledge, no study has yet been undertaken to explore the level of critical thinking integration into young learners' EFL curriculum in Oman. Thus, this study is an attempt to fill in this research gap by answering the following research question:

1. To what extent does the Omani English language curriculum of young learners incorporate critical thinking skills?

The findings of this study are hoped to add to the Omani literature regarding the alignment level between the skills that are being actually implemented in the current Omani EFL curriculum and the official goals concerning the development of critical thinking from the early years of education. This, in turn, is going to grant the curriculum developers a clear vision that can assist them in any curriculum reform projects. In addition, since critical thinking development in the early stages is essential to lifelong development, the results of this study might provide an insight into the young learners' command of critical thinking skills when they enter the upper stages of their education, which, consequently, would give a potential explanation of their struggle in the after-school stage.

2. Literature Review

In 1990, Peter. A. Facione reported the results of an inquiry that was funded by the American Philosophical Association (APA) and which involved a panel of critical thinking experts who were "widely recognized by their professional colleagues to have special experience and expertise in critical thinking instruction, assessment or theory" (p. 7). Employing the Delphi method, the panel, which consisted of 46 critical thinking experts, gathered and worked over two years until they reached conceptualizations of different issues regarding critical thinking, including its definition. The panel defined critical thinking as a "purposeful, self-regulatory judgment, which leads to interpretation, analysis, evaluation, and inference, as well as an explanation of evidential, conceptual, methodological, or contextual considerations upon which that judgment is based" (Facione, 1990, p. 6). The significance of this definition lies in the fact that it is a consensus statement of an international critical thinking panel that represented different disciplines. What is remarkable regarding this definition also is that it provides a comprehensive set of critical thinking abilities and skills.

2.1 Critical Thinking Skills

In addition to the definition of critical thinking, the APA panel also agreed upon the most common critical thinking skills. Building on the panel's consensus, Facione (1990) designed his framework to include six core skills that represent the heart of critical thinking. To provide a deeper understanding of such skills, Facione divided each skill into subskills (Alvarenga, 2012). The following sections outline these skills and subskills.

2.1.1 Interpretation. Interpretation is the ability to "comprehend and express the meaning or significance of a wide variety of experiences, situations, data, events, judgments, conventions, beliefs, rules, procedures, or criteria." Categorization, decoding significance, and clarifying meaning are considered subskills of interpretation (Facione, 1990, p. 13).

2.1.2 Analysis. Analysis requires the ability "to identify the intended and actual inferential relationships among statements, questions, concepts, descriptions, or other forms of representation intended to express belief, judgment, experiences, reasons, information, or opinions." It contains three subskills: examining ideas, detecting arguments, and analyzing arguments (Facione, 1990, pp. 14-15).

2.1.3 Evaluation**.** As the panel of experts defined it, evaluation is the ability to "assess the credibility of statements or other representations which are accounts or descriptions of a person's perception, experience, situation, judgment, belief, or opinion; and to assess the logical strength of the actual or intended inferential relationships among statements, descriptions, questions or other forms of representation." It includes two subskills: assessing claims and assessing arguments (Facione, 1990, pp. 15–16).

2.1.4 Inference. Inference refers to the ability "to identify and secure elements needed to draw reasonable conclusions; to form conjectures and hypotheses; to consider relevant information and to educe the consequences flowing from data, statements, principles, evidence, judgments, beliefs, opinions, concepts, descriptions, questions, or other forms of representation." This skill includes three subskills: "querying evidence, conjecturing alternatives and drawing conclusions" (Facione, 1990, pp. 16–17).

2.1.5 Explanation. Explanation is the ability "to state and to justify that reasoning in terms of the evidential, conceptual, methodological, criteriological, and contextual considerations upon which one's results were based; and to present one's reasoning in the form of cogent arguments." The experts classified "stating results," "justifying procedures," and "presenting arguments" as the three subskills of the explanation skill (Facione, 1990, p. 18).

2.1.6 Self-regulation. The experts define self-regulation as "self-consciously to monitor one's cognitive activities, the elements used in those activities, and the results educed, particularly by applying skills in analysis, and evaluation to

one's own inferential judgments with a view toward questioning, confirming, validating, or correcting either one's reasoning or one's results." This skill consists of two subskills: "self-examination" and "self-correction" (Facione, 1990, p. 19). However, the experts pointed out that the *self-regulation* skill is different from the other skills as it has a "metacognitive aspect". In other words, it requires the application of other critical thinking skills to evaluate one's thinking, which implies that this skill is more complicated compared with the other critical thinking skills.

Furthermore, the experts noted that their list of critical thinking skills is "not intended to imply the endorsement of any psychological, logical or epistemological order or skill-sequence, nor as prescribing any educational taxonomy or skill-hierarchy" (Facione, 1990, p. 14). A notable characteristic of Facione's (1990) model is that it considers interpretation, inference, and explanation to be core critical thinking skills, unlike Krathwohl's (2002) classification, which categorizes these three skills under the category of "understanding," which is one of the lower-level thinking skills (p. 215).

2.2 Importance of Critical Thinking in Education

Critical thinking literature reveals that critical thinking plays an essential role in education. For instance, Siegel (1985) indicated four main reasons that stress the important role of critical thinking in the educational progress of students. The first is that students are worthy of respect as persons in their communities and that this respect cannot be achieved unless they are enabled to think for themselves and take control of their minds and lives. This requires enabling them to utilize their critical thinking abilities. The second reason is the fundamental role of education in preparing students for their future. This role cannot be successful if it is limited to rote learning and pre-packed knowledge; rather, students must be prepared to be self-sufficient and self-directed. The third reason for critical thinking being key in education is that it enhances the "rational traditions" that should be initiated and mastered by students (p.73). In other words, educational traditions like mathematics, science, literature, art, and history, all depend on critical thinking to be internalized and mastered. Fourth, critical thinking is central to democratic life. Democracy can become real only when the citizens can evaluate, judge, and scrutinize issues on the personal and the global level, which requires enabling citizens to become good critical thinkers.

In addition to the general rationale that underlies the strong interdependence between critical thinking and education, critical thinking enhances the learning and academic achievement of individuals. Paul (2005) has clearly stated that "becoming a skilled thinker" means "becoming a skilled learner" (p. 29). He further explained that critical thinking provides the tools needed for any learner to acquire the "substantive knowledge" of subjects (p. 31). Similarly, Elder and Paul (2010) maintained that learning depends on how well the thinking capacities are being used. In other words, good thinking yields good learning, and poor thinking yields poor learning.

Furthermore, the numerous empirical studies that have been conducted to investigate the impact of critical thinking on learning have shown encouraging results in favour of critical thinking implementation. For instance, Latif et al. (2019) reviewed the literature to investigate the application of critical thinking in accounting education. This review presented a collection of supporting literature that evidenced the major role that critical thinking plays in increasing learners' level of achievement. Moreover, Latif et al. (2019) stressed the need to imbed critical thinking in higher education to produce learners who are ready to cope successfully with life.

In the field of communication sciences and disorders, Morris et al. (2019) applied a pre-test–post-test design to assess the critical thinking skills of students who completed 10 weeks of critical thinking instruction. After comparing the results of the two tests, the findings were consistent with the other studies, showing that the critical thinking infusion program had a significant effect on students' progress in the curriculum. In sum, these studies indicate that, although critical thinking instruction has been applied temporarily for research purposes, it yields promising results across different disciplines.

2.3 The Role of the Textbooks in Developing Critical Thinking Skills

Textbooks are considered the third party in any educational system, alongside the two parties of the teacher and the student (Allwright, 1981). They can be considered as the link between the teacher and the curriculum developers since they convey the latter's guidelines and learning objectives so teachers can implement them easily and firmly. Hutchinson and Torres (1996) clarified this role when they stated that the importance of textbooks resides in the fact that "they provide a secure framework within which learners and teachers can make informed choices" (p. 324). In addition, less experienced teachers consider textbooks as a source of confidence that guides them and directs them in their early years in the profession. Furthermore, Cunningsworth (1995), argues that the different tasks that the textbooks contain represent varied learning points that can make learning more effective for the student and hence, encourage learning autonomy.

Thus, when it comes to critical thinking implementation in the classroom, the type of skills incorporated into the tasks of these textbooks should be a matter of concern. These tasks—or, as Willingham (2008) calls them, experiences—are needed to develop students' cognitive skills since purposeful experiences provide a path toward more complex thinking. Moreover, specialists have emphasized that one of the key factors that enhance students' thinking is establishing "thoughtful classrooms," which have been characterized by Beyer (1998) as those that constantly engage students in "productive learning tasks/activities" that "require students to produce new knowledge . . . rather than reproducing information or knowledge already presented to them" (p. 262).

The importance of students' experiences is not a new issue in education as it was first introduced through the theory of constructivism. According to this theory, when children are faced with new experiences, they activate certain cognitive processes that enable them, over time, to the developmental schema. As they utilize the processes of "assimilation and accommodation," their zone of proximal development gets higher and they can engage in problem-solving and other HOTS like critical thinking (Florea & Hurjui, 2015, p. 566). In addition, Bailin et al. (1999) declared that children's capability of activating critical thinking skills in a certain area is extremely dependent on "the depth of knowledge, understanding and experience" they have in that area (p. 290).

These tasks, according to Vygotsky (1978), should not be confined to the basics of the subject matter, which he describes as "the automatic unconscious acquisition" of knowledge (as cited in Fisher, 1999, p. 54). Rather, he argues that teachers should go further to the "conscious control over that knowledge," which qualifies learners to become more reflective and realize the relationship between what they already know and the new information (as cited in Fisher, 1999, p. 54). This is similarly expressed by the APA Delphi panel, who stated that teachers can start critical thinking instruction by providing students with simple situations, but that it should gradually move to more "realistic," "complex," and "thought-provoking" situations rather than the acquisition of mere knowledge about the subject matter (Facione, 1990, pp. 28-33). Furthermore, Virjo et al. (2001) found that productive tasks enhanced students' motivation and made them more conscious of their learning needs, and Ozturk et al. (2008) concluded that interactive tasks, like problem-solving and decision making, enhanced students' respect for others' views and improved their evaluation skills (as cited in Lin et al., 2018).

However, Snyder and Snyder (2008) pointed out that, unfortunately, most instructional materials lack critical thinking resources that can aid the teacher in implementing critical thinking skills. They argued that the current curricula's focus on content weakens the teacher's ability to present critical thinking in the classroom. Similarly, one of the findings of Almulla (2015)'s study was that the traditional curriculum was considered, by the teachers, a major barrier to the implementation of teaching practices that support critical thinking. Thus, the strong relationship between the textbook and the teacher as teachers regard textbooks as a source of "confidence and security" (Huchiston &Torres, 1996, p. 318), indicates that the type of tasks included in these textbooks should be a matter of much concern.

2.4 Critical Thinking in the Early Years

Empirical research has proven that children's thinking skills, like those of adults, can prosper when appropriate instructional contexts are provided. For instance, Lipman (1988) affirmed that establishing strong critical thinking skills starts in the early stages of education and that the teachers' role is to prepare students for the coming stages rather than the current stages (as cited in Davis-Seaver & Davis, 2000, p. 4). Furthermore, the APA report emphasizes the educational systems' responsibility for developing young children who have the characteristics of "good critical thinkers" (Facione, 1990, p. 27). The report also maintains that critical thinking instruction should be "an integral part of the elementary school education" (Facione, 1990, p. 29). Similarly, Fisher (1999), a renowned contributor to the field of teaching thinking to young children, has emphasized that a child is born with "an elastic mind capable of being stretched in all sorts of directions" (p. 58). The same notion was expressed by Burke et al. (2007), who stressed that imparting knowledge to children is not sufficient. Instead, children need what they call the "active use of knowledge"; that is, the ability to transfer this knowledge into real-life situations (p. 3). Likewise, Silva (2009) goes further by stating that there is no specific age at which children are more capable of thinking in more sophisticated manners. She argues that the previously held notion that young children are simply concrete thinkers is no longer valid. Bailin et al. (1999) elucidated the importance of developing critical thinking skills in early childhood as they argued that developing children's critical thinking skills should start before primary school so that, when they reach primary school, they are capable of distinguishing between different arguments and making informed decisions. Young (1992) stresses the idea of graduality when introducing critical thinking skills. She argues that teaching critical thinking should begin with the easy skills to allow for "refinement of the new skills" and then, as children advance, the difficulty level of the thinking activities should be gradually increased (p. 53).

2.5 Previous Research Studies

As ELT textbooks are regarded as representative of "the visible heart of any ELT program" (Sheldon, 1988, p. 237), investigating these textbooks can provide a fair overview of the pedagogical approaches of their developers. In terms of critical thinking integration level in EFL textbooks, the various research that has explored this issue emphasized that critical thinking skills have low representation levels across the different educational stages.

Starting with the higher education stage, Azizi and Talebinejad (2012) conducted a study to evaluate the reading comprehension questions included in a general English textbook used in Iranian universities. The textbook that was analyzed was the one used in the most popular Iranian universities and was designed intentionally to develop students' reading comprehension. The questions in the book were checked for the presence of any feature of Facione's (2011) critical thinking model. The study showed that Facione's (2011) critical thinking skills were represented at low frequency.

In terms of high school level, Solihati and Hikmat (2018) investigated the level of integration of critical thinking skills in English language textbooks used by senior high school students in Indonesia. Their study adopted Ilyas's (2016) framework of critical thinking as the basis of the content analysis. Their investigation revealed a low representation of critical thinking in the targeted textbooks, despite critical thinking having been included in the educational objectives of Indonesia. Furthermore, Riazi and Mosalanejad (2010) investigated the levels of Bloom's taxonomy of thinking skills as represented in the learning objectives of three high school textbooks and pre-university English language textbooks. Based on Bloom's classification of learning objectives, the researchers developed a coding scheme that was utilized to codify the different tasks and exercises presented in the textbooks. Although the results showed that the pre-university textbooks included a significantly higher percentage of the higher-order learning objectives, lower-order thinking objectives were still dominant in all the textbooks analyzed.

This situation applies similarly at the intermediate level as Alul's (2001) study revealed. This study investigated the representation of Bloom's higher-order thinking skills in Palestinian eighth-grade English textbooks. The researcher used an analysis checklist based on Bloom's thinking levels to analyze the questions presented in two textbooks (a students' book and a workbook). She concluded that lower-level questions were the dominant type in these textbooks.

Finally, Demir (2008) invited teachers to have their say in this regard. The researcher explored the level of critical thinking integration into the national Turkish primary ELT textbooks from the teachers' perspectives. The study aimed to evaluate the extent to which these textbooks developed thinking skills. The researcher designed an evaluation rubric that consisted of 41 items, which was administered to 120 English language teachers. Then, 10 of those teachers were interviewed to gather more data. The study revealed a mismatch between the objectives of the Turkish ministry of education as stated in the "English curriculum book" and the English textbook activities used in primary schools.

Overall, although these studies share the same purpose as they investigate the level of critical thinking integration into the EFL textbooks, there has been no study yet that tackled this issue in the early stages of education by analyzing the EFL textbooks of this stage. This same scenario applies in Omani literature as all the studies conducted in this regard were focused on the upper grades and higher education. There has been no attempt to examine the issue of critical thinking in the early grades by any means. Such a gap was aimed to be addressed in the present study. Thus, this study examined the level of critical thinking integration into the EFL curriculum of the early grades in Oman. The findings of the study would yield significant contributions to the relevant literature as it complements the previous findings related to critical thinking integration into the EFL curriculum.

3. Research Methodology

3.1 Research Design

This study adopted the quantitative approach to investigate the extent to which critical thinking skills are integrated into the tasks of the Omani EFL textbooks used by young learners. A content analysis checklist that adopted Facione's (1990) model of critical thinking skills was designed. Facione's model was chosen as the analytical framework for this content analysis because it represents the most common and agreed-upon classification as articulated by the most distinguished critical thinking experts from different disciplines (Facione, 1990). The critical thinking subskill represented the category of analysis, while each task in both Grade 4B textbooks represented a unit of analysis.

3.2 Study Population and Sample

The population of the study included the EFL curriculum used by young learners. However, the sample included the revised edition of Grade 4B *English for Me Class Book* and *English for Me Skills Book* which were published by the Omani MOE in the 2012/2013 academic year. Teacher's Book was used to have more details and descriptions of the tasks included in the targeted textbooks. The textbooks are divided into six units that present the core material, and each unit contains 12 lessons. In addition to the six units, there is a supplementary unit that contains additional tasks "to provide opportunities to extend and recycle the language which children have already met in previous units" (MOE, 2013–2014, p. 5). As illustrated in Table 1, Grade 4B textbooks contain a total of 346 tasks (as identified by the MOE) distributed relatively evenly across the seven units. These tasks cover the four language skills (listening, reading, speaking, and writing), grammar, and vocabulary. Table 1 shows the distribution of tasks per unit in Grade 4B textbooks.

Table 1. Task Distribution among Grade 4B Units

Unit	Number of tasks
Unit 1	56
Unit 2	57
Unit 3	52
Unit 4	53
Unit 5	53
Unit 6	56
Supplementary Unit	19
Total	346

3.3 Study Instrument

At the beginning, the researchers developed a coding guide that consisted of three parts. The first part included the core critical thinking skills with their definitions, as cited in Facione (1990). The second part listed the critical thinking subskills with their definitions, also as cited in Facione (1990). The third part consisted of some examples of tasks or activities that represented each subskill. Some of these examples were adapted from Facione (1990); however, other examples were derived from the Omani young learners' curriculum (see Appendix A).

Next, a preliminary coding sheet was designed to be used during the coding process. This sheet included seven charts that corresponded to the seven units in the 4B textbooks (see Appendix B). Each chart was split into 12 columns that represented the 12 lessons in the unit, and 6 rows that represented the maximum possible number of tasks in each lesson. The researchers tracked all the tasks in both textbooks and noted the ones that are related to critical thinking development in this sheet. Finally, the content analysis checklist was designed as a cumulative sheet that gathers all data collected from the preliminary sheet. This checklist sheet combined critical thinking skills, subskills and the units of the textbooks (see Appendix C).

3.4 Reliability and Validity of the Instrument

Initially, the researchers tried to establish the inter-rater reliability of the content analysis checklist with two English language teachers who had more than 10 years of experience each. Critical thinking skills and subskills were introduced to the two raters. Each of the critical thinking skills was explained and the coding procedure was demonstrated practically using the coding guide. To provide an example, one of the researchers worked together with the two raters worked to analyze and code Unit 1 from Grade 4B textbooks. Then the researcher and two raters agreed to individually analyze and code Unit 2. A period of 3 weeks was designated for this procedure to be accomplished. On the due date, the three coding sheets were collected and compared. The two raters reported that they found it difficult to work on the analysis individually and thus decided to work together on one coding sheet. Finally, the two raters identified 24 tasks as integrating critical thinking skills compared with only five identified by the researcher. Eventually, the researchers concluded that the inter-rater reliability could not be established due to the teachers' vague understanding of critical thinking skills. Thus, the researchers shifted to establishing the intra-rater reliability of the instrument. A month after the first coding, Unit 2 tasks were analyzed and coded again. In the initial coding phase, out of the 56 tasks in Unit 2, five were found to integrate critical thinking skills, compared with seven

in the second coding phase. The degree of reliability of the content analysis checklist was computed using the following formula:

$$\frac{number\ of\ times\ of\ agreement}{number\ of\ times\ of\ agreement - number\ of\ times\ of\ disagreement} * 100 = [53 / (53 + 3)] *100 = (53 / 56) *100 = 94.64\ \%$$

This intra-rater reliability was found to be over 94%, which indicated that this content analysis checklist was reliable.

3.5 Data Collection

Data collection started by giving each of the critical thinking skills and subskills a code to facilitate the coding procedure. During the coding process, both the coding guide and the coding sheet were used side by side. Grade 4B Teacher's Book was also utilized because it describes how the tasks in each of the textbooks should be executed and presented to the students, which helped in judging the type and level of thinking skills integrated into each task. After studying each task in the specified unit, the decision was made regarding whether it belonged to one of the critical thinking subskills. If a certain task was found to integrate any of the critical thinking subskills, the corresponding subskill code was written in front of that task in the preliminary coding sheet. Finally, for each unit, the total number of tasks that incorporated critical thinking skills was counted.

3.6 Data Analysis

The data collected from the content analysis checklist was dealt with quantitatively. Tasks that incorporated critical thinking skills from Facione's model in both textbooks were counted, which allowed the frequencies and percentages to be calculated. The resulting data was utilized to answer the research question, which aimed to determine the degree of integration of critical thinking skills into Grade 4B textbooks.

4. Results

The content analysis of Grade 4B textbooks was executed to identify the level of integration of critical thinking in Grade 4B textbooks. This investigation covered the Grade 4B *English for Me Class Book* and *English for Me Skills Book*. Facione's (1990) model for critical thinking skills was used as the analytical framework.

Table 2. Frequencies and Percentages of Critical Thinking Tasks in Grade 4B Textbooks

Critical thinking skill	Frequency	Percentage
Interpretation	16	4.62
Analysis	7	2.02
Evaluation	3	0.87
Inference	16	4.62
Explanation	9	2.60
Self-regulation	72	20.81
Total	123	35.55

This analysis showed that tasks that integrate critical thinking skills constitute only 35.55% of the total number of tasks in Grade 4B textbooks (Table 2). The table also illustrates that the *self-regulation* skill is the most represented critical thinking skill across Grade 4B textbooks (20.81%). The rest of the skills scored far lower percentages in terms of their integration into the tasks in the textbooks. For example, the *interpretation* and *inference* skills share the same percentage (4.62%) of Grade 4B tasks. However, the explanation skill scored 2.60%, followed by the *analysis* skill, which scored only (2.02%). The least represented critical thinking skill was the *evaluation* skill, which was integrated into 0.87% of the tasks included in Grade 4B textbooks.

Excluding the supplementary unit, with only 6.50% of its tasks integrating critical thinking skills, Table 3 shows that critical thinking skills were relatively evenly distributed across the units. To illustrate, Unit 1 and Unit 5 each included 16.26% of the total number of critical thinking tasks in both textbooks. Units 2, 3, and 6 scored the same level of critical thinking integration as each other, including 15.45% of the critical thinking tasks. In contrast, Unit 4 had the smallest portion of critical thinking tasks (14.63%).

Table 3. Frequencies and Percentages of Critical Thinking Tasks Distribution across Grade 4B Units

Unit	Frequency	Percentage
Unit 1	20	16.26
Unit 2	19	15.45
Unit 3	19	15.45
Unit 4	18	14.63
Unit 5	20	16.26
Unit 6	19	15.45
Supplementary unit	8	6.50
Total	123	100

Table 4. Frequencies and Percentages of Critical Thinking Subskills Integration into Grade 4B Tasks

Subskill	Frequency	Percentage
Categorization	5	1.45
Decoding significance	5	1.45
Clarifying meaning	6	1.73
Examining ideas	7	2.02
Detecting arguments	0	0.00
Analyzing arguments	0	0.00
Assessing claims	2	0.58
Assessing arguments	1	0.29
Querying evidence	1	0.29
Conjecturing alternatives	5	1.45
Drawing conclusions	10	2.89
Stating results	6	1.73
Justifying procedures	3	0.87
Presenting arguments	0	0.00
Self-examination	72	20.81
Self-correction	0	0.00
Note. The percentage was calculated by dividing the frequency value by the total number of tasks in the textbooks (346), as illustrated in Table 1.		

As Table 4 shows, the *self-examination* subskill was the most integrated subskill of the 16 critical thinking subskills as it was incorporated in 20.81% of the overall tasks in Grade 4B textbooks. *Drawing conclusions* was the second most integrated subskill, incorporated into 2.89% of the tasks. Both *querying evidence* and *assessing arguments* were the least represented critical thinking subskills in the curriculum, represented in only 0.29% of the provided tasks in the textbooks. Finally, the table also illustrates that Grade 4B textbooks did not include tasks that incorporate the critical thinking subskills of *detecting arguments* (0%), *analyzing arguments* (0%), *presenting arguments* (0%), or *self-correction* (0%).

5. Discussion

In this study, grade 4B textbooks, as a case of the EFL curriculum of young learners, were analyzed to explore the extent to which they integrate critical thinking skills. This analysis was based on Facione's (1990) identification of critical thinking skills and subskills. The tasks that were included in these textbooks were coded and evaluated in terms of their integration of critical thinking subskills. The content analysis revealed that the tasks that integrate critical thinking skills were way less frequent than the ones that do not. Out of the (346) tasks available in both textbooks, critical thinking tasks make up only (35.55%). Besides, the types of critical thinking skills integrated were not varied as four of the critical thinking subskills were found to be absent from the tasks of both textbooks and these are: *detecting arguments, analyzing arguments, presenting arguments, and self-correction* while the *self-examination* subskill was dominating (20.81%).

This conclusion is supported by the findings of other studies that investigated other Omani English language textbooks of the upper grades such as Al Wahaibi et al. (2018) and Al Rujaibi and Al Busaidi (2017). Al Wahaibi et al. (2018) reported that most Grade 6 writing tasks integrate lower-order thinking skills at the expense of critical

thinking skills. Al Rujaibi and Al Busaidi (2017) also found that HOTS, including critical thinking, "receive less attention" compared to the lower-order skills in grades 11 and 12 textbooks. These results are also in line with the findings of other studies that investigated the level of textbooks integration of critical thinking skills in other contexts (Alul, 2001; Azizi & Talebinejad, 2012; Riazi & Mosalanejad, 2010; Solihati & Hikmat, 2018) which concluded that the frequency of the lower-order thinking skills in the investigated textbooks is way higher than the critical thinking skills.

An interesting result revealed in this study was that the *self-regulation* skill is the most integrated skill among the other critical thinking skills in the textbooks while the other five skills are integrated into far fewer tasks. This finding contradicts another finding of Al Rujaibi and Al Busaidi's (2017) study as the researchers reported that "the skill of *self-regulation* was absent from the 11th-grade textbooks and appeared only twice in the 12th-grade textbooks" (p. 42). While critical thinking skills integration into the curriculum should gradually increase to equip the school leavers with the needed skills for the higher education stage, the reality seems to be contradictory.

These findings indicate two serious problems on the macro level. The first problem is the big gap between theory and practice which is being manifested in the mismatch between the official statements and objectives of the MOE, as reported in the ELCF and the official textbooks which are supposed to transfer these objectives in the field. Although they are published by the same institution (the MOE), they are contradicting each other. To explain, despite that the MOE considers developing young learners' critical thinking skills one of its primary goals, the findings of this study imply that the English language curriculum developers in Oman, tend to place a greater emphasis on the lower order thinking skills at the expanse of critical thinking development which is given less attention. Like the previous studies, this study reemphasized that the implemented textbooks do not communicate the MOE's objectives regarding critical thinking development. Most tasks included do not allow for deeper thinking like interpreting, analyzing, evaluating, …etc. This very limited exposure to critical thinking practices indicates that these textbooks still encourage rote learning and deal with students as passive learners. In brief, these textbooks are not yet capable of promoting young learners' critical thinking.

The second problem is the absence of a clear and systematic planning that appeared in different areas. First, the different critical thinking subskills are not equally distributed amongst the different tasks of the investigated textbooks. For instance, some critical thinking subskills are not included at all (*detecting arguments, analyzing arguments, presenting arguments, and self-correction),* while another subskill is overemphasized (*self-examination*). The absence of such skill predicts a flaw in the educational system of this stage because young learners need to be able to identify controversial issues, analyze them as well as present their arguments. Furthermore, logically, *self-examination* and *self- correction* are two connected subskills since any *self-examination* needs to be followed by *self-correction*. The absence of tasks that nurture the *self- correction* subskill makes it meaningless to teach children how to examine their cognitive processes without training them on how to correct them.

Second, the distributions of some tasks that integrate critical thinking skills does not consider gradation with the cognitive development of the young learners. Although the level of critical thinking skills integration in the curriculum should, logically, increase with the progression of students' age (Young, 1992), some of the critical thinking subskills, which can be considered more suitable for young learners' level, are rarely introduced like *categorization* and *clarifying meaning*. Young learners usually enjoy classifying different objects into different categories (animals, classroom objects, colours, etc.). Similarly, clarifying meaning tasks can be executed more frequently with young learners as they express their understanding of word or phrase meaning, for instance. Yet, these textbooks do not pay attention to making use of these chances.

On the contrary, the *self-examination* subskill, which is presumably, the most difficult one as it requires applying all critical thinking subskills to one's thinking (Facione, 1990), is overstressed. In other words, young learners who use these textbooks are frequently asked to analyze, evaluate and judge their cognitive activities before they get enough practice on these skills in other contexts, which seems unreasonable. Remarkably, the findings of Al Rujaibi and Al Busaidi's (2017) reveal that the *self-examination* subskill, which is overemphasized in the early grades in the EFL curriculum, was totally missed from that of the high school. Hence, teachers are expected to skip these tasks or at least reduce them since they found them redundant or above their students' level.

Finally, this lack of planning is more stressed when the Teacher's Book, which is supposed to be a guide for the teacher in implementing the curriculum, does not provide any guidance regarding the number of critical thinking tasks or how to teach and execute such tasks. The teacher, as a key partner in the educational process, needs to be fully aware of what and how to teach critical thinking. Teacher's Book lacks any type of clarification regarding critical thinking tasks which suggest that the few critical thinking tasks found in these textbooks were included by

chance and the integration of critical thinking skills was not really intended or planned for.

These problems explained above direct the attention to the EFL curriculum developers and teachers. The lack of coordination between theory (official statements) and practice (curriculum) and the arbitrariness that was evident in task distribution indicate that the curriculum developers might not have a proper understanding of critical thinking pedagogy and how to be integrated into the curriculum. Similarly, teachers cannot be dismissed from the scene since they are the ones who can make any pedagogy a success or failure. Integrating teachers into the planning stage can guarantee their ownership in the practice stage. Even if textbooks are not capable of critical thinking development, when teachers are well qualified to teach critical thinking, they can modify the uncritical thinking tasks into critical thinking ones. Therefore. the real inclusion of critical thinking into the curriculum starts by ensuring teachers' readiness to do so. Raising curriculum developers, as well as teachers' awareness about critical thinking, theoretically and practically, is of paramount importance since their lack of knowledge can negatively influence the educational product.

In brief, despite the international emphasis given to the importance of developing critical thinking skills from the very beginning of education, the findings of this content analysis, especially when combined with the findings of the textbook analysis of the other higher grades, reveal that the status of critical thinking in the Omani ELT is problematic. There is an urgent need to reexamine and evaluate the current ELT program on all levels: the MOE objectives, curriculum developers and teachers. The consistent coordination between these three parts would, certainly, assist to bridge the gap between theory and practice in the Omani educational system in general and in ELT, specifically.

6. Conclusions

Building one's critical thinking skills is a developmental process that should start very early in one's life. Launching this process in the early years of education guarantees better results. As a part of the educational process, textbooks play a crucial role in transmitting the official agendas for practice. Hence, the types of tasks included in these textbooks can determine the progress level of students' intellectual skills. or demote the learner's critical thinking. Thus, investigating the level of critical thinking skills integrated into the tasks of these textbooks becomes necessary to ensure a sufficient level of critical thinking skills integrated into the curriculum. In Oman, the studies that have examined this issue were conducted either at the intermediate or high school level. The young learner's stage stayed untouched. This study is significant since it explored critical thinking integration from a new angle that had been missed in the Omani critical thinking literature. It examined the issue in young learners' EFL education providing an initial idea of the extent to which the EFL curriculum of young learners is compatible with the requirements of the current era where critical thinking is regarded as one of the core skills for the individual's survival and welfare. This content analysis of the sampled grade 4B textbooks revealed that critical thinking skills have a low representation level in young learners' EFL curriculum compared with the lower order thinking skills. In addition, the study demonstrated a limited variety of the available critical thinking subskills as some subskills are totally excluded and another subskill (*self-examination*) is remarkably over-represented.

7. Study Limitations

This content analysis was limited to one grade (Grade 4, second-semester textbooks). Therefore, the results of this study might not apply to the other EFL textbooks in the early stage. In addition, this analysis utilized Facione's framework of critical thinking skills. Different results can be concluded with different critical thinking frameworks.

8. Implications and Recommendations

While education's role is to equip citizens with the needed critical thinking skills to be able to cope and excel in this highly competitive world, the findings of this study imply that these textbooks are not capable of preparing learners who can succeed in the after-school stage. This insufficient integration of critical thinking skills into the Omani young and adult learners' curriculum can be regarded as an essential factor behind the students' struggle for satisfying the requirements of the higher education stage and beyond. Thus, this investigation can be regarded as a conscious-raising point that, when combined with the results of the other textbook analysis studies, can give a bigger picture of the current status of critical thinking in Oman.

Altogether, since the development of critical thinking is already one of the MOE's objectives, the study suggests increasing the number of tasks that incorporate critical thinking in the textbooks. In addition, it recommends

including a guiding section in the Teacher's Book that provides information about how to teach these tasks. Furthermore, curriculum developers need to be made fully aware of the concept of critical thinking and how to design tasks that encourage this kind of thinking. Moreover, the study calls for an urgent and comprehensive evaluation of the EFL curricula that include samples from other early grades textbooks to examine the extent of integration of critical thinking skills. In terms of further research, the researchers suggest conducting a classroom observation study that examines teachers' implementation of critical thinking tasks and the extent to which they are ready to teach them.

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Appendix A

Coding Guide: Critical Thinking Skills and Subskills

CT Skills	Sub-skills	Definition	Examples
1. Interpretation	1.1 Categorization	* to formulate categories or distinctions for understanding and describing information.	# To ask Ss to classify words into verbs, nouns, adjectives, etc.
	1.2 Decoding significance	*To detect, attend to, and describe the informational content, intentions, motives, purposes, social significance, values, views, rules, procedures, criteria, or relationships expressed in language, social behaviours, drawings, numbers, graphs, tables, charts, signs and symbols.	#To detect the reasons which made a certain character in a story behave in a certain way. # To interpret the data displayed in a chart.
	1.3 Clarifying meaning	*to paraphrase or make explicit, through stipulation, description, or figurative expression the intended meanings of words, ideas, concepts, statements, behaviours, drawings, numbers, signs, charts, graphs, symbols, rules, events or ceremonies.	# To restate what a person said using different words or expressions.
2. Analysis	2.1 Examining ideas	*to determine the component parts of an issue. *to identify the conceptual relationships of those parts to each other and the whole.	# To identify a phrase in a text which might make the readers agree with an opinion. # To examine solutions regarding a given problem and determine their similarities and differences. # Given a complicated assignment, to determine how it might be broken up into smaller, more manageable tasks.
	2.2 Detecting arguments	*to determine whether a given set of statements, descriptions, questions or graphic representations expresses reasons in support of some claim, opinion or point of view.	# Given a paragraph, determine whether it presents a claim as well as a reason or reasons in support of that claim. # Given a passage from a newspaper, determine if the author of that passage intended it as an expression of reasons for or against a given claim or opinion.
	2.3 Analyzing arguments	*given the expression of a reason or reasons intended to support a claim, opinion or point of view, to identify the intended main conclusion and the reasons in support of the main conclusion.	# Given a brief argument, paragraph-sized argument, to identify the author's main claim, the reasons the author advances on behalf of that claim and the background information used to support those reasons.
3. Evaluation	3.1 Assessing claims	*to assess the relevance of questions, information, principles, rules, judgment, belief or opinion.	# To determine if a given principle is applicable to decide what to do in a given situation. # To determine if a given claim is likely to be true or false based on what one knows or can reasonably find out.
	3.2 Assessing arguments	* to determine whether an argument relies on false or doubtful assumptions. * to judge between reasonable and fallacious inferences. * to determine and judge the strength of an argument's intended or unintended	# to judge if a given argument is relevant or applicable.

		consequences.	
4. Inference	4.1 Querying evidence	*to formulate a strategy for seeking and gathering information that might support evidence. * to judge that information relevant to deciding the acceptability of a given alternative.	# to ask Ss to find information from a text that supports their opinions.
	4.2 Conjecturing alternatives	* to formulate multiple alternatives for resolving a problem. * To develop a variety of different plans to achieve some goals. * to draw out possible consequences of decisions, positions, policies, theories, or beliefs.	# to predict the difficulties and the benefits which are likely to result if some decisions are made.
	4.3 Drawing conclusions	* to apply appropriate modes of inference in determining what position, opinion or point of view one should take on a given matter or issue. * to determine which of several possible conclusions is most strongly warranted or supported by the evidence at hand, or which should be rejected or regarded as less plausible by the information given.	#to carry out experiments and to apply appropriate statistical inference techniques to confirm or disconfirm an empirical hypothesis.
5. Explanation	5.1 Stating results	*to produce accurate statements, descriptions, or representations of the results of one's reasoning activities.	*to state one's reasons for holding a given view. # to state one's research findings. # to convey one's analysis and judgment regarding a work of art. # to state one's considered opinion on a matter.
	5.2 Justifying procedures	*to present the evidential, conceptual, methodological, criteriological and contextual considerations which one used informing one's interpretations, analyses, evaluation or inferences, so that one might accurately record, evaluate, describe or justify those processes to oneself or to others, or so as to remedy perceived deficiencies in the general way one executes those processes.	# to keep a record of the steps followed in working through a long or difficult problem or scientific procedure. # to explain one's choice of a particular statistical test for data analysis. # to state the standards, one used in evaluating apiece of literature.
	5.3 Presenting arguments	*to give reasons for accepting some claim.	# to write a paper in which one argues for a given position or policy. # to identify and express evidence and counterevidence on a matter of deep personal concern.
6. Self-regulation	6.1 Self-examination	* to reflect on one's own reasoning and verify both the results produced and the correct application and execution of the cognitive skills involved.	# to identify and review one's reasons and reasoning processes in coming to a given conclusion.
	6.2 Self-correction	*where self-examination reveals errors or deficiencies, to design reasonable procedures to remedy or correct, if possible, those mistakes and their causes.	#given a methodological mistake or factual deficiency in one's work, revise that work so as to correct the problem.

Appendix B

The Preliminary Coding Sheet used in Grade 4B Textbooks Content Analysis

Table B.1. Numbers of Critical Thinking Tasks in the Six Main Units of Grade 4B Textbooks

Numbers of Critical Thinking Tasks in the Six Main Units of Grade 4B Textbooks												
Unit 1: Free Time												
	L1	L2	L3	L4	L5	L6	L7	L8	L9	L10	L11	L12
T1												
T2												
T3												
T4												
T5												
T6												
Unit 2: Around the World												
	L1	L2	L3	L4	L5	L6	L7	L8	L9	L10	L11	L12
T1												
T2												
T3												
T4												
T5												
T6												
Unit 3: Sport												
	L1	L2	L3	L4	L5	L6	L7	L8	L9	L10	L11	L12
T1												
T2												
T3												
T4												
T5												
T6												
Unit 4: Space												
	L1	L2	L3	L4	L5	L6	L7	L8	L9	L10	L11	L12
T1												
T2												
T3												
T4												
T5												
T6												
Unit 5: Homes												
	L1	L2	L3	L4	L5	L6	L7	L8	L9	L10	L11	L12
T1												
T2												
T3												
T4												
T5												
T6												
Unit 6: save the Earth												
	L1	L2	L3	L4	L5	L6	L7	L8	L9	L10	L11	L12
T1												
T2												
T3												
T4												
T5												
T6												
Note. L refers to Lesson and T refers to Task												

Table B.2. Numbers of Critical Thinking Tasks in the Supplementary Unit of Grade 4B Textbooks

Numbers of Critical Thinking Tasks in the Supplementary Unit of Grade 4B Textbooks		
	Task Title	✔ Critical thinking tasks, (X) non-critical thinking tasks
1	Mother's Day	
2	'Words in Words' Game	
3	Sami's Family Verbs	
4	Celebrating Mother's Day	
5	To the Park	
6	The Card Game	
7	Vicky's Letter	
8	Zuweina's Mother	
9	'Over in the Meadow' Song	
10	A Thank You Letter	
11	Sally's Dad	
12	Father's Day	
13	The Suffix Challenge	
14	Imagination Time	
15	A Special Person	
16	Helen's Story	
17	Aunt Maisa	
18	The Garden Game	
19	Next Year's Plan	
Total of Critical Thinking Tasks		

Table B.3. Sums of Tasks That Integrate Critical Thinking Skills in Each Unit in Grade 4B Textbooks

Sums of Tasks That Integrate Critical Thinking Skills in Each Unit in Grade 4B Textbooks												
Units	L1	L2	L3	L4	L5	L6	L7	L8	L9	L10	L11	L12
U1	3	5	5	4	5	5	6	5	5	5	4	4
U2	4	4	5	5	5	5	5	5	5	6	3	5
U3	4	4	5	4	5	4	4	5	5	5	3	4
U4	4	4	5	5	5	4	4	5	5	4	4	4
U5	4	5	4	5	4	5	5	5	5	4	3	4
U6	4	5	5	5	5	4	5	5	5	5	4	4
Supplementary Unit	8											
Total	23	27	29	28	29	27	29	30	30	29	21	25
Note. U refers to Unit and L refers to Lesson												

Appendix C

The Content Analysis Checklist

Sums and Percentages of Tasks That Integrate Critical Thinking Skills in Each Unit in Grade 4B Textbooks																	
		Unit 1		Unit 2		Unit 3		Unit 4		Unit 5		Unit 6		Supplementary Unit		Total	
CTS	Subskills	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%
Interpretation	Categorization																
	Decoding significance																
	Clarifying meaning																
Analysis	Examining ideas																
	Detecting arguments																
	Analyzing arguments																
Evaluation	Assessing claims																
	Assessing arguments																
Inference	Querying evidence																
	Conjecturing alternatives																
	Drawing conclusions																
Explanation	Stating results																
	Justifying procedures																
	Presenting arguments																
Self-regulation	Self-examination s																
	Self- correction																
Total																	