The Practice and Challenges of Implementing Critical Thinking Skills in Omani Post-basic EFL Classrooms

Naeema Saleh Al-Kindi[1] & Abdo Mohammed AL-Mekhlafi[2]

[1] Minstry of Education, Sultanate of Oman

[2] Sultan Qaboos University, Sultanate of Oman

Corresponding: Abdo Mohammed AL-Mekhlafi, Sultan Qaboos University, Sultanate of Oman. E-mail: Abdoali914@gmail.com

Abstract

The purpose of the current study is to investigate post-basic English teachers` practice of critical thinking skills and the challenges they face while teaching skills in EFL classrooms. Three research questions were investigated to achieve this purpose: 1-To what extent do EFL teachers use classroom behaviors that nurture critical thinking at the post basic education schools? 2- Does EFL teachers' practice of classroom behaviors that nurture critical thinking skills vary according to gender? 3-What challenges do EFL teachers face when incorporating critical thinking in their classrooms?

The sample was drawn from 12 post basic schools: 3 female schools, 3 male schools and 6 mixed gender schools. The total number of grade 11 and 12 English teachers in these schools is thirty: 15 males and 15 females. To accomplish the objectives and fulfill the purpose of the study, the study employed a questionnaire and an observation form to collect the data needed to answer the research questions. On looking at the post-basic EFL teachers' use of behaviors nurturing critical thinking skills, the study reveals that post-basic English teachers rarely use the behaviors that nurture critical thinking skills. The findings also show no significant difference between males and females in the use of the behaviors that most nurture critical thinking skills, except for one type of behavior. Moreover, the study results report some challenges that EFL teachers face when teaching critical thinking; these are related to the course book, to extra-curricular activities, to class size and to training.

Keywords: critical thinking, EFL, challenges, implementation

1. Introduction

Teaching critical thinking skills in EFL classrooms is essential to prepare students for life'schallenges.Improving teachers' understanding of how to do thisis fundamental, especially at the post-basic education level. In today's age of knowledge explosion and information technology, mastery of thinking skills is considered a basic requirement for coping with this rapidly changing world. Learning to think critically is a lifelong skill with broad applications, both inside and outside the classroom (Bataineh & Alazzi, 2009; Innabi & El Sheikh, 2007; Paul, Elder, & Bartell, 1997). Heyman (2008) points out that it is effective thinking that promotes the development of the minds of human beings and it is through following such thinking patterns that science and arts are developed. However, according to Al-kharoosi (2002), Al- Balushi and Osman (2013), Al-Nabahini (2010), Al Barwani and Osman (2011), and the Ministry of Education and Bank (2012), the condition of our students' higher order thinking skills calls for concern. Despite the high competition for selection to higher education institutions, graduates from post-basic schools are not well prepared to undertake university-level studies. The graduates admitted to higher education are generally not sufficiently competent in academic subjects, especially scientific subjects and English, and they show weaknesses in critical thinking, time management, capacity to work independently and work ethics (Ministry of Education & Bank, 2012; AL Barwani, 2002; Al-Nabahini, 2010). It therefore seems that, despite the fact that the curriculum aims to equip students with crucial thinking skills, this does not happen in reality, raising questions about the possible reasons for such a situation. One source that can provide useful information about how critical thinking skills are implemented inside Omani post-basic classrooms is the EFL teachers. By conducting a study that focuses on the actual classroom teaching of critical thinking skills, the data will bring to light some objective information that can explain students' low performance

in critical thinking skills. As far as is known and based on the literature, no Omani study has previously been done on how critical thinking skills are taught inside English classrooms in post-basic education schools.

1.1 Reseach Studies Related to Critical Thinking Instruction and Students' Collaborative Work

Critical thinking skills can be developed through investment in a number of classroom activities that promote collaborative work between students. The effect of such work on the enhancement of critical thinking skills in the classroom is highly recommended by several studies.

Wass and Harland (2011), for example, examined students' experiences of learning to think critically. This study lasted for three years and had a population of twenty-six undergraduates studying zoology at the University of Otago, New Zealand. The study tested the assumption that critical thinking skills did not develop in isolation but involved the interaction between a group of learners. The study used Vygotsky's developmental model of the Zone of Proximal Development (ZPD) as a theoretical background to help understand the students' experiences. Vygotsky suggested that the social interactions between people have the potential to transform the way human beings think. He claimed that, instead of focusing upon what a learner could already achieve, the teacher ought to concentrate on learners' skills in co-operative activities. Vygotsky's ZPD highlights the role of peers' assistance in the development of thinking skills. Wass and Harland (2011) reported that the first year of instruction at the college focused on the acquisition of factual knowledge, resulting in very little improvement in students' critical thinking. In this study, students were encouraged to rely on each other for support. In the following two years of the study, students were scaffolded for critical thinking through being encouraged to work collaboratively in research projects, so that they gradually changed their views about the nature of knowledge. Conversation with lecturers and peers gave students verbal scaffolding which helped them to extend their ZPD for critical thinking. Gradually, they started to accept responsibility for their own and their peers' learning. The study revealed that the research projects that required the students to work in teams facilitated the development of students' evaluative judgement, necessary for critical thinking. In addition, it revealed that the level of confidence students gained as a result of peer questioning facilitated the development of their critical thinking skills.

In Anderson's (2011) study, a teaching program was reported in which critical thinking skills were taught. The main aim of the study was to develop, use and evaluate a program for teaching vocational-education students the skill of justification. Instruction was based on modelling and peer-based critiquing activities in order to get students' project work done. The sample included eighty-four students from the College of Education who were given ten sessions of teaching intervention which coincided with their additional assessed integrative project work. Students learned to critique imaginary examples of project outlines and plans using peer-based exercises and later used peer work to critique each other's proposed projects. An analysis of students' dialogues with each other indicated that they had learned the importance of justifying arguments. In addition, the content analysis of students' written work indicated that they had become involved in justification of their arguments to a significantly greater degree than the students in control groups. Several main variables in the dialogues correlated positively with the justification skills shown in their written work, indicating that the dialogue had an effect on their writing.

1.2 Purpose of the Study

The study aims to focus on the practice of critical thinking skills in teaching English as a foreign language post-basic education schools in Oman and the challenges teachers encounter when implementing them

1.3 Research Questions

This study will seek to answer the following research questions:

1) To what extent do EFL teachers use classroom behavior that nurtures critical thinking in post-basic education schools?

2) Does EFL teachers' practice of classroom behavior that nurtures critical thinking skills vary according to gender?

3) What challenges do EFL teachers face when incorporating critical thinking strategies in their classrooms?

1.4 Definitions of Key Terms

Critical thinking: This is defined as the practice of higher order cognitive skills that are classified under the three higher domains of Blooms' Taxonomy. These domains are analysis, synthesis and evaluation (Bloom, 1956; Ennis, 1989; Halpern, 1996).

Behavior that nurtures critical thinking: This includes behavior that invites and enhances critical thinking skills inside the classroom. Inviting behavior includes teachers' questioning skills at the analysis, synthesis and evaluation levels of Bloom's Taxonomy. Enhancing behavior includes the behavior that is suggested by Costa (2001) to enhance critical thinking skills. This behavior is classified under three categories: structuring the classroom for thinking, teacher response behavior and modeling behavior (To learn more about these categories, see Appendix).

Post-basic teachers: This includes all the teachers teaching Grade 11 and 12 students

2. Method

2.1 The Sample

The sample of the study consists twelve schools: three female-only, three male-only and six mixed-gender schools. The number of classes observed was 62 classes and all the thirty English language teachers of post basic classes (grades 11 and 12) in these schools.

2.2 Instruments

The researcher used a classroom observation form regarding elements of EFL teachers' behavior that invite and enhance students' critical thinking and a questionnaire for eliciting the challenges teachers face in implementing critical thinking skills. The study adapted Alwhaibi's (2012) observation form and was checked for validity and reliability.

2.3 Establishing the Validity and the Reliability of the Observation Form

The observation form was checked for validity and reliability. It was validated by a panel of area experts and practitioners. With regard toreliability, before conducting the classroom observations, the researcher, two English supervisors and a senior English teacher conducted three trial observations which were followed by detailed discussion in order to clear up any ambiguous items in the observation form and to familiarize the other raters with the observation context. The researcher and the other raters attended three classes. The aim behind this was to establish the inter-rater reliability of the observation form. The observers sat through the same lessons at the same time and all used the observation form that had been developed for the study. The reliability coefficient of the observers was (r = 0.75).

2.4 Administration of the Observation Form

In the study, the classroom observations were conducted in the second semester of the academic year 2014-2015. Thirty teachers of Grades 11and 12 were observed teaching English in their classrooms using the "Engage with me" course books. Each teacher was observed three times, with each lesson lasting forty minutes. The average of the three observations was calculated and used to compare the means of frequencies of each item in the observation form.

The study used the tally-based observation form to determine the frequency of teacher behavior to either invite or enhance critical thinking in the classroom. The researcher then calculated the mean of the frequency of each behavior, which was interpreted based on a cutoff-point scale that was developed following previous studies in the field of critical thinking instruction (Alwhaibi, 2012; Al-kharoosi, 2002). The mean of each behavior was compared to a cutoff-point equal to (3), indicating that (3) represents an average use of the behavior. If the mean of the behavior was below three, it indicates that the use of the behavior is below average. If the mean of the behavior was above three, it indicates that the use of the behavior is above average

2.5 The Challenges Questionnaire

The reliability of the questionnaire was established by pilot-testing it on a random sample of twenty teachers who were not involved in the study. Twenty copies of the questionnaire were distributed to the English teachers, ten male and ten female, in order to establish the internal consistency reliability coefficient, which was computed using SPSS software. The internal consistency reliability coefficient for the items of the (Cronbach's alpha =.89).

3. Results and Discussion

3.1 EFL Teachers' Use of Classroom Behavior that Nurtures Critical Thinking Skills at the Post -basic Education Schools

Question 1: To what extent do EFL teachers use classroom behavior that nurtures critical thinking behavior at the post-basic education schools?

The study used a classroom observation form to collect the information necessary to answer the third research question. The form was used to record how often the teachers practiced classroom behaviors that invited and enhanced the students' critical thinking skills. Counting the tallies recorded for each item in the observation form enabled the study to figure out to what extent English teachers managed to use classroom behavior that nurtures (invites and enhances) critical thinking skills. The observation form consisted of two parts: behavior that helps invite critical thinking skills and behavior that enhances critical thinking skills inside the classroom.

The mean frequency of each type of behavior is compared to a cutoff-point equal to (3), indicating that (3) represents an average use of the behavior. If the mean of frequency is below 3, it indicates that the use of the behavior is below average. If the mean frequency is above 3, the use of the behavior is above average

Table 1. Grand means and standard deviations (SD) of teachers' behaviors inviting critical thinking

Dimension	Mean	SD
1. Teachers' Behaviors inviting analysis	1.20	.37
2. Teachers' Behaviors inviting evaluation	.45	.36
3. Teachers' Behaviors inviting synthesis	.14	.27
Overall Mean	.60	.29

Mean equal to 3 is average, mean below 3 is below average, and mean above 3 is above average.

Teachers' behavior that invites critical thinking skills includes the asking of questions that challenge the students to think at the three higher order domains of Bloom's Taxonomy, analysis, synthesis and evaluation. Table 4 shows the teachers' practice through questions at these three domains, and reveals that their use of this behavior is below average (mean = .60). The table also shows that most of the questions the teachers ask in the classroom to invite critical thinking skills fall under the analysis domain, with a mean of (1.20), indicating that even the use of behaviors inviting analytical thinking is below average. Questions linked to the evaluation domain have a mean equal to (.45); showing that the use of behavior that invites students' evaluative thinking also falls below average. The lowest mean is for behaviors that invite thinking at the synthesis level, with a mean of (.14), again indicating that the use of this behavior is below average.

Table 2. Means and standard deviations of teachers' behaviors inviting critical thinking

		Statements	Mean	SD
Analysis	1.	Seeking evidence for stated claims by asking students to clarify and justify their responses	2.1	.36
	2.	Requires students to recognize inference	1.20	.48
	3.	Requires students to distinguish between relevant and irrelevant evidence	1.20	.48
	4.	Asks students to recognize insufficient evidence	.13	.43
	5.	Asks students to distinguish between facts and opinions	1.40	.56
		Grand Mean	**1.20**	**.37**
Evaluation	1.	requires students to transfer/ relate cognitive input/ skills to everyday life/ social context	.50	.57
	2.	requires students to reflect on their thought process and work orally and in writing	.43	.57
	3.	Asks students to judge accuracy, adequacy, clarity, credibility, validity, worth, etc.	.43	.50
		Grand Mean	**.45**	**.36**
Synthesis	1.	Asks students to apply past knowledge to new situations (create something new)	.23	.43
	2.	Invites students to think hypothetically and creatively	.07	.25
	3.	Asks students to formulate designs, conclusions, stories, assumptions, etc.	.13	.35
		Grand Mean	0.14	.27
		Overall Grand Mean	.60	.29

Mean equal to 3 is average, mean below 3 is below average, and mean above 3 is above average.

Table 2 shows the statements that represent the behaviors inviting critical thinking skills under the three domains: analysis, synthesis and evaluation. The results presented in the table reveal that the teachers' questioning that invites critical thinking skills is of a low mean frequency, with means that range between (2.1) and (0.07). The four types of behavior used most by the teachers falls under the analysis domain, with a mean ranging between (2.1 and 1.2). According to classroom observations, the teacher's questioning, with a mean of (2.1), making it the one most frequently used by the English teachers, is focused on seeking evidence for stated claims, where teachers ask students to clarify and justify their responses. Teachers' behavior that involved the students distinguishing between facts and opinions is the second most frequently used, with a mean of (1.40). The third most frequently used questioning is that requiring students to recognize inference and to distinguish between relevant and irrelevant evidence (mean = 1.2).

The table also shows that the teachers' least used behaviors fall under the evaluation and synthesis domains, with a mean below (0.5), indicating that the use of this behavior is below average. This indicates that the teachers rarely require their students to transfer or relate cognitive input or skills to their everyday life and social context, reflect on their thought processes or work, orally or in writing; students are also rarely required to judge accuracy, adequacy, clarity, credibility, validity or worth. In addition, the teachers rarely required their students to apply past knowledge to new situations (create something new), think hypothetically and creatively or formulate designs, conclusions, stories, assumptions, and the like.

These results are in line with the findings of Al-kharoosi (2002), Al- Balushi and Osman (2013), Al-Nabahini (2010), Thurman (2009), Beyer (2001), Fisher (2007) Tan (2007), Hussin (2006), Shen and Yodkhumlue (2011) and Godfrey (2001). According to Tan (2007), Hussin (2006), Shen and Yodkhumlue (2011) and Godfrey (2001), insufficient higher-order thinking instruction limits the development of students' higher order thinking. The results in these studies also imply that the limited use of high order cognitive questions by teachers may limit the development of students' critical thinking.

Table 3. Grand means and standard deviations of teachers' behaviors enhancing critical thinking

Dimension	Mean	SD
1. Structuring the classroom for critical thinking	1.7	.37
2. Teacher Response Behaviors	1.8	.31
3. Modeling	.50	.29
Overall Mean	1.32	.29

Mean equal to 3 is average, mean below 3 is below average, and mean above 3 is above average.

Teachers' behaviors that enhance critical thinking skills are classified under three dimensions, behavior focusing on structuring the classroom for thinking, behavior responding to students' thinking and behavior modeling critical thinking (Costa, 2001). Table 6 shows the teachers' practice of the behaviors in these three dimensions. It reveals that overall the teachers' use of behaviors that enhance critical thinking skills are all below average (mean = 1.32). The most used enhancing behavior falls under the dimensions of 'teacher response behavior', with a mean of (1.8), followed by behaviors focusing on structuring the classroom for thinking, with a mean of (1.7), and, finally, modeling behavior with a mean of (.50). This means that grade 11 and 12 teachers make insufficient use of the behavior that should enhance their students' critical thinking skills inside the classroom. These findings are in line with those of Al-kharoosi (2002), Al- Balushi & Osman (2013), Al-Nabahini (2010), Fisher (2007) Tan (2007), Hussin (2006), Shen and Yodkhumlue (2011) and Godfrey (2001).all of whom also note that lack of instruction in critical thinking limits the development of students' critical thinking.

Table 4. Means and standard deviations of teachers' behavior that enhances students' critical thinking

	Statements	Mean	SD
Structuring the classroom for critical thinking	1. Encourages students' interaction and cooperation to solve a problem or complete a task	2.00	.45
	2. Encourages students to ask each other thought provoking questions.	1.90	.66
	3. Uses different class groupings for different activities to solve a problem or complete a task	1.90	.66
	4. Uses a variety of visual media (e.g., charts, chalkboard, maps, pictures, gestures) to develop cognitive strategies	2.10	.37
	5. Encourages students to answer each other's questions	2.10	.37
	6. Displays creative works of students around the room	.23	.43
	Grand Mean	1.7	.37
Teacher Response Behaviors	1. Allows wait time (at least 10 seconds) for students' answers/Reponses before restating or redirecting the question	2.10	.37
	2. Allows time to consider/think about alternatives/points of view	2.10	.37
	3. Reinforces students for responding to open-ended questions	2.10	.37
	4. Encourages incorrect student responses with supportive comments/behavior	2.10	.37
	5. Accepts students' responses (reflections, opinions, thoughts, etc.) without judgment to encourage exploring possibilities	2.80	.48
	6. Requires students to expand on answers.	1.20	.48
	7. Encourages more than one student to give points of view / solutions/evidence	.23	.43
	Grand Mean	1.8	.31
Modeling	1. Uses cognitive languages (e.g., compare, analyze, classify, predict, create)	.23	.43
	2. Shows enthusiasm for challenges and complex tasks requiring higher order thinking skills	.10	.25
	3. Uses clear/real examples/models to facilitate/explain/teach logical thoughts	1.20	.48
	Grand Mean	0.50	.29
	Overall Grand Mean	1.32	.29

Mean equal to 3 is average, mean below 3 is below average, and mean above 3 is above average.

Table 4 shows the statements that represent behavior enhancing critical thinking skills under the three dimensions: structuring the classroom for thinking, responding to students' thinking and modeling critical thinking. The results reveal that the teachers' questioning that enhances critical thinking skills are below average, with means that range between (2.8) and (0.10). These results are again in line with those of Al-kharoosi (2002), Al- Balushi and Osman (2013), Al-Nabahini (2010), Thurman (2009), Beyer (2001), Fisher (2007), Shen and Yodkhumlue (2011) and Godfrey (2001), all of whom also show that a lack of instruction in critical thinking hinders the development of critical thinking by students.

With regard to "structuring the classroom for critical thinking" dimension, Table 4 reveals that the teachers' behavior focusing on "interaction and cooperation to solve a problem or complete a task" and on "using different class groupings for different activities to solve a problem or complete a task"is at a low mean, ranging from (2) to (1.9), indicating that the use of such behavior is below average. Teachers' behavior should encourage the students to cooperate with each other, for example, by using phrases like 'help each other', 'work together', 'student A work with student B to help her', etc.; in this way the teacher sets up rules for students to assist each other by using statements that remind them to do so. However, in the observed classes, it was not unusual to see students seated in groups but not being coached by the teachers to interact and cooperate with each other. This means that although the students were seated in groups, they were completing their tasks individually. Instead, teachers should focus on setting up cooperation between the students and ensuring that it is actually taking place. Thus, though collaborative learning is a very important component of critical thinking instruction (Costa, 2001), really collaborative work was largely unseen in the EFL classes observed. What the study mostly noted was a class of students who are seated in groups but who work individually without approaching the tasks and activities collaboratively. The main challenge even among the teachers is to be consistent with one approach and

not the other. Social constructivist approaches to language learning emphasize that students acquire knowledge through interaction with their social environment and through reflection on their experiences (Simina & Hamel, 2005) and research based on social constructivism has given evidence of the power of instructor support, collaboration and social interaction in boosting critical thinking (Swain, 2002). The majority of classroom activities should therefore be performed in a way that will engage the learners to work collaboratively, a method which establishes a stress-free atmosphere in the classroom and makes the learning process more enjoyable and also more thought-provoking. Such activities will meet students' social need for a sense of attachment to the whole group, and thus will boost their motivation, help them develop a positive attitude towards critical thinking and encourage them to increase their involvement in critical thinking activities in the future.

However, Table 7 reveals that, in the classes observed, the teachers' behavior that enhances peer work, 'Encourages students to ask each other thought-provoking questions and Encourages students to answer each other's questions', were at low means ranging from (2.1) to (1.9), indicating that the use of such behavior falls below average; in other words, it did not happen very much. According to King (1995), peer questioning plays a key role in developing students' critical thinking skills through the use of thought-provoking questions. Thought-provoking questions in this context refer to questions that require the students to go beyond the facts and to think about them in a way that is different from what is presented explicitly in class or the text. Thought-provoking questions include high level cognitive processes such as analysis of ideas, comparison and contrast, inference, prediction, evaluation and the like. Students might be seated together and might even be helping each other, but they will not ask each other critical thinking questions unless they have been coached by teachers to do this. Teachers' coaching here includes classroom behavior and language (verbal or body language) that they use to make the students ask each other questions that provoke critical thinking skills, as recommended by King (1995). Social interactions in the classroom are not always between the student and the teacher, and recently there has been growing interest in the importance of peer communication (Damon, 1984). Havnes (2008) claims that learning from peers is different from learning from teachers because it allows more space for stress-free discussions, diverse solutions and conflicting arguments. The language that peers use is often closer to the students' language than that which teachers use (in Brookfield, 2012). Ideally, when students interact with teachers, the students may ask questions that challenge the teacher, and the quality of the teacher's reasoning may also improve, as they check their own assumptions and evidence for their position (Browne & Keeley, 2010).

Looking at the issue of visual support for students, Table 6 reveals that teachers' behavior that focuses on 'Uses a variety of visual media (e.g., charts, chalkboard, maps, pictures, gestures) to develop cognitive strategies' and, 'Displays creative works of students around the room' was at a low mean in the observed classes, ranging from (2.1) to (0.23) indicating that the use of such behavior is below average. According to King (1995), the environment of the classroom should be appealing and encouraging for the students. Teachers should use a variety of teaching aids and resources. They should decorate their classrooms in a way that provides a variety of colorful displays that motivate the learners to think critically. Students spend most of their time inside the classroom and see the visuals on the walls every day, making it essential to use this powerful source of learning to develop learners thinking skills. Teaching will be more interesting, since it will not be a set of fixed tasks that will be carried out in the same way with any group of students. Instead, the teacher will have the chance to be more creative in establishing stimulating environments for the learners, to help them develop all the sets of learning skills and abilities they need to become critical thinkers.

With regard to the 'teacher response behavior' dimension, the results presented in Table 4 reveal that the teachers' response behavior that enhances critical thinking skills is of a low frequency, with means that ranged between (2.80) and (0.23). According to classroom observation, the behavior most used by the English teachers is 'Accepts students' responses (reflections, opinions, thoughts, etc.) without judgment to encourage exploring possibilities', with a mean of (2.8), but even this behavior is used at below average frequency. In addition, the table shows that teachers rarely reward students for responding to open-ended questions (mean = 2.10) and rarely encourage incorrect student responses with supportive comments or behavior (mean= 2.10). Critical thinking includes skills that need a great deal of reinforcement if students are to be motivated to develop a positive relationship towards thinking critically. Based on Maslow's hierarchy of needs, in order for students to be intrinsically motivated, they must first be motivated extrinsically by satisfying some of their basic human needs. Thus, the teacher should start by establishing extrinsic motivation in order to gradually develop the learners' intrinsic motivation towards critical thinking skills. A key strategy is to use the power of positive reinforcement in an effective way to attract the students. Also, different forms of reinforcement lead to different forms of behavior from the learners. The teacher should therefore be careful about what reinforcement to use, when to use

it and what kind of behavior they aim to reinforce. Table 7 also shows that teachers rarely allow wait time (at least 10 seconds) for students' answers/responses before restating or redirecting the question (mean= 2.10) and rarely allow time for students to think about alternative points of view (mean= 2.10). The effectiveness of wait time in teaching critical thinking has been well described Rowe (1992). In her research, Rowe (1992) claimed that if a teacher's question was followed by about three seconds of silent time for students to prepare their responses, they could answer the question more effectively. In other studies, researchers similarly found that the regular use of "wait time" has a positive effect on both students' attitudes and behavior.

With regard to the 'Modelling'dimension, the results presented in table 4reveal that the teachers' modeling behaviors to enhance critical thinking skills are of a low frequency, with means that range between (1.2) and (0.10). According to the classroom observation, the behavior that is most commonly used by English teachers is 'Uses clear/real examples/models to facilitate/explain/teach logical thoughts'; even this had a mean of (1.20), indicating that its use is below average. Teachers' use of examples, or models that facilitate, explain or teach logical thoughts, is thus insufficient. Moreover, the teachers' use of behavior that focuses on the use of cognitive language, like compare, analyze, classify, predict, and create, falls far below average, with a mean of (.23). According to Brookfield's (2012) observations of how students learn critical thinking, students like it when teachers model the critical thinking process and draw students' attention to it. He also claimed that it is helpful to support critical thinking with concrete examples.

It could be concluded that the findings show that the teachers make rare use of behavior that nurtures critical thinking skills, which indicates insufficient instruction in critical thinking skills inside post-basic EFL classrooms. These results are also borne out by those of Al-kharoosi (2002), Al- Balushi and Osman (2013), Al-Nabahini (2010), Beyer (2001), Fisher (2007), Tan (2007), Hussin (2006), Shen and Yodkhumlue (2011) and Godfrey (2001). There are many possible reasons why critical thinking is not implemented and taught to a satisfactory level inside Omani EFL classrooms. This might be due to the teachers' own lack of knowledge of critical thinking skills, which this study has also revealed in the findings of the first research question, whose results suggest that EFL teachers probably do not have enough knowledge about critical thinking concepts and skills to incorporate them into their classroom practice (Lauer, 2005). Moreover, Kowalczyk, et al. (2012) claim that teachers' absence of sufficient knowledge of critical thinking skills could hinder their' ability to assist critical thinking among their students. The study also reveals that teachers face many challenges that hinder their instruction in critical thinking skills. The Omani teachers in the current study report that they are responsible for a large amount of extracurricular activities which leave them little time to facilitate critical thinking instruction in their schools. Another possible reason for the teachers' rare use of behavior nurturing critical thinking skills is the lack of training provided to the teachers on how to teach this. Critical thinking instruction by teachers is influenced by the amount of training provided to the teachers. In his study, Sodoma and Else (2009) reported that training teachers helps them to feel more comfortable when dealing with the challenges of the new experiences. Teachers need considerable clarification about how to teach and encourage critical thinking. If critical thinking skills are taught in a professional way by well-trained teachers who are given a clear picture behind every critical thinking task in their text books, the classroom teaching will be a lot more fun for both the students and teachers (Al-Nabahini, 2010). This will also create less stress on teachers, who will have to take on the roles of guide, coach, mentor and model for their learners. Teaching will be more interesting since it will not be a set of fixed tasks that will be carried out in the same way with any group of students. Instead, the teacher will have the chance to be more creative in establishing a stimulating environment for the learners to help them develop all the sets of skills and abilities they need in real life (Lauer, 2005).

3.2 Difference in Teachers' Practice of Critical Thinking Instruction According to Gender

Question 2: Does EFL teachers' practice of classroom behavior that nurtures critical thinking skills vary according to gender?

This question was answered by comparing the practices of male and female teachers about behavior that nurtures critical thinking. In order to find out the answer for this research question, an independent-samples t-test was computed. Table 7 displays the t-test results for differences between male and female teachers' behavior that nurtures critical thinking.

Table 5. Independent sample t-tests for the difference in teachers behaviors inviting critical thinking skills according to their gender

Dimension		Gender	N	df	Mean	SD	t	Sig.
1.	Behaviors inviting analysis	male	15	28	1.17	.17	.39	.70
		female	15		1.22	.51		
2.	Behaviors inviting synthesis	male	15	28	.089	.15	1.12	.27
		female	15		.20	.35		
3.	Behaviors inviting evaluation	male	15	28	.27	.19	3.4	.002*
		female	15		.64	.39		
4.	Overall Grand Mean	male	15	28	.51	.12	1.8	.085
		female	15		.69	.37		

The mean difference is significant at .05 level.

Table 5 reveals that there is no significant difference between males and females in the use of the behavior that invites critical thinking skills. This indicates that both male and female teachers have similar practices in the classroom with regards to inviting critical thinking skills. In addition, the table reveals that there is no significant difference between males and females in the use of the behavior that invites analysis and synthesis. This means that both male and female teachers demonstrate similar practices and behavior with regard to the two domains of analysis and synthesis. On the other hand, data reveals that there is a significant gender difference in the level of the behavior inviting evaluation with a t-value of (3.4) and a significant level of (.002).This difference is in favor of females, indicating that female teachers use more behavior that invites evaluation than male teachers.

3.3 The Challenges EFL Teachers Face when Teaching Critical Thinking

Question2: What challenges do EFL teachers face when incorporating critical thinking strategies in their classrooms?

The fifth section of the teachers' questionnaire was used to collect data for the sixth research question. The items in this section are divided into four dimensions: challenges related to the course books, extra-curricular school activities, classroom size and training opportunities. The last part of this section includes an open-ended question to explore any other challenges that teachers might face while teaching critical thinking.

A 5-point scale was used to compare the means of the statements in Tables 6 and 7. The mean indicates an extremely challenging barrier if it ranges between 4.5 and 5, very challenging if it ranges between 3.5 and 4.4, moderately challenging if it ranges between 2.5 and 3.4, slightly challenging if it ranges between 1.5 and 2.4 and not challenging if it is below (1.5).

Table 6. Grand means and standard deviations (SD) of the challenges efl teachers face when teaching critical thinking

Dimensions		Mean	SD
1.	Challenges related to the course books	3.92	.30
2.	Challenges related to extra-curricular activity level in the school	4.26	.41
3.	Challenges related to the classroom size	4.22	.29
4.	Challenges related to the training on critical thinking instruction	4.30	.53
5.	Overall Grand Mean	4.10	.17

Mean between 4.5 and 5 = extremely challenging, mean between 3.5 and 4.4 = very challenging, mean between 2.5 and 3.4 = moderately challenging, mean between 1.5 and 2.4 = slightly challenging, mean below 1.5 = not challenging.

Table 6 reveals that the teachers consider the barriers related to the course books, extra-curricular school activities, classroom size and training opportunities were all very challenging for critical thinking instruction,

with an overall mean of (4.10). Table 6 also reveals that the challenges related to training opportunities provided for teachers on critical thinking are the most challenging of the elements they faced, with a mean of (4.30). The table also shows that the challenges related to the level of cross-curricular activities in the school are the second most challenging, (mean = 4.26). As seen in the tables, challenges related to the course books are the least challenging for the teachers with a mean of (3.92).

Table 7. Means and standard deviations of the challenges efl teachers face when teaching critical thinking

	Statements	Mean	SD
The course books used to teach grades 11 and 12	1. The teacher's book provides me with enough guidelines of how to teach critical thinking skills	3.73	.45
	2. The course book includes suitable tasks that enhance critical thinking skills	3.86	.86
	3. The course book includes acceptable amount of tasks that enhance critical thinking skills	3.90	.76
	4. I am satisfied with the critical thinking tasks provided by the curriculum	4.20	.76
	Grand Mean	3.92	.30
extra-curricular activity level	1. I think the amount of work load I do for the school activity is acceptable	4.63	.49
	2. I think the activity level in the school facilitates teaching critical thinking skills in my classrooms	3.76	.86
	3. I am satisfied with the amount of school activity level I am responsible for in the school	4.40	.72
	Grand Mean	4.26	.41
Classroom Size and c	1. The size of my classroom helps me teach critical thinking skills effectively	4.43	.73
	2. The size of my classroom helps me give enough written feedback to my students while teaching critical thinking skills	4.03	.61
	3. The size of my classroom helps me provide enough oral feedback to students while teaching critical thinking skills	4.16	.64
	4. I am satisfied with my class size while teaching critical thinking skills	4.26	.58
	Grand Mean	4.22	.29
Training	1. I received enough training about how to teach critical thinking skills	3.90	.72
	2. I received enough training about how to teach critical thinking skills provided by my senior teacher	4.36	.72
	3. I received enough follow up and feedback from my supervisor about how to teach critical thinking skills	4.50	.51
	4. I am satisfied with amount of training I received about how to teach critical thinking skills	4.43	.62
	5. I am satisfied with amount of follow up I received from my supervisors about how to teach critical thinking skills	4.33	.71
	Grand Mean	4.30	.53
	Overall Grand Mean	4.1	.18

Mean between 4.5 and 5 = extremely challenging, mean between 3.5 and 4.4 = very challenging, mean between 2.5 and 3.4 = moderately challenging, mean between 1.5 and 2.4 = slightly challenging, mean below 1.5 = not challenging.

With regard to how the course book helps in teaching critical thinking skills, Table 7 displays an overall high mean ranging between (3.7) and (4.20). This reflects the fact that the teachers think the teachers' books do not provide enough guidelines on how to teach critical thinking skills, which is perceived as a very challenging barrier for the teachers with a mean of (3.73). In addition, the teachers report that the number and suitability of the tasks provided in the students' course books are insufficient, which is also perceived as a very challenging barrier for teaching critical thinking skills.

There are several possible reasons for the teachers' complaints about the role of the course books in teaching critical thinking skills. This is because the current need is not only to have a good course book that includes the best theories for our learners but also to help teachers get a clear understanding of those theories that are behind every task in the course book. Language instruction that focuses on the use of critical thinking skills is essential. English language course books are ideal tools for critical thinking development, affecting the whole process of learning the language. Thus, they can then be appropriate resources for critical thinking activities, as critical thinking based activities can augment language learning and make learners eager to expand their thinking.

Table 7 reveals an overall high mean for the amount of extra-curricular school activities for which teachers are responsible, ranging between (3.63) and (4.63), suggesting that teachers perceive it as not acceptable, with a mean of (4.63), and extremely challenging. Moreover, the teachers believe that the level of extra-curricular activity in general hinders their ability to provide critical thinking instruction; the mean of (3.76) indicates that the teachers perceive this barrier to be very challenging.

Table 7 also reveals clearly that a good class size facilitates the teaching of critical thinking skills. The study reveals an overall high mean that ranges between (4.03) and (4.43), showing that the teachers have a relatively high level of dissatisfaction the obstacle that class size poses to critical thinking instruction. The teachers believe that the class size is a very challenging barrier for the instruction of critical thinking skills since it obstructs the oral and written feedback sessions that the teacher should provide while teaching critical thinking.

During the process of critical thinking instruction, students engage in a variety of activities and practice different skills. For example, in critical writing, students get involved in pre-writing, planning, drafting, revising, editing and publishing. During the instruction process, the teachers are supposed to monitor students' learning process by providing them with the needed feedback. It is essential for teachers to follow-up individual students to ensure the development of their skills. Current research confirms the need for appropriate class size to reduce the stress of follow-up on the teachers (Raimes, 2005). The class thus size plays a great role in the degree of success of critical thinking instruction. For example, in the study by Leki and Carson (2003), they found that teaching a relatively acceptable number of students eases the whole process of instruction and gives the teacher the chance to reflect on their own teaching and their students' learning process.

With regard to the opportunities of training received about critical thinking skills, table 8 reveals an overall high mean that ranges between (3.90) and (4.5), indicating that the teachers revealed a relatively high level of complaint about the lack of the training and feedback on critical thinking instruction, which should be provided by the training center, senior teachers and supervisors.

It has been well documented that critical thinking instruction is influenced by the amount of training provided to the teachers. The benefits of training were clearly reported by Sodoma and Else (2009) who, in their study, recognized that training opportunities for teachers help the teachers feel more comfortable with the challenges of the new experiences. The ambiguity of the application of critical thinking in the schools needs to be clarified for teachers. Similarly Darmody et al. (2010) find training to be an important variable that affects the teachers' productivity. Kitching (2009) also shows that pre-information brings trainees more self-efficacy in training and motivation to learn. Thus, to raise teachers' learning self-efficacy and critical thinking motivation, stakeholders should clearly address the importance of critical thinking training by providing more opportunities for the teachers to enrol in training programs. In our Omani context, there are many ambitious teachers who come up with many creative ideas but they usually do not implement them. Most of the teachers lack experience in how to deal with crises inside the classroom. In our training sessions, we usually focus on training the teachers on methodology of teaching but there is rarely focus on how the teachers can deal with challenging situations inside the classrooms (Darmody et al., 2010).

4. Open-Ended Question: The Challenges of Critical Thinking Instruction

The teachers' responses to the last open-ended question on additional challenges that teachers face in the school but were not included in the questionnaire, raised a number of issues; they identified a number of challenges and discussed how to reduce their effect.

Teachers reported that the lack of communication between families and the school hinders critical thinking instruction. They reported that family support can happen at home through parents' follow up of their children's progress in critical thinking. Parents can provide their children with positive reinforcement for their achievement. This can happen if there is good communication between school and home. Teachers mentioned that parents rarely participate in parents' councils. They suggested the need for cooperation between the family and the school in order to help the teacher apply teaching methods appropriately. Home and school should work hand in hand to enhance students' development at this critical stage without direct interference in the learners'

learning process. There should be a strong communication system (like phone numbers, emails, instant messaging, Facebook and Twitter) created between school and home to ensure that, whenever help is needed for the learners, no obstacles will hinder this help. Parents need to get the help from the school about the latest changes in the school. Schools should help families who might have financial problems to access the internet or other forms of communication in a way that will prevent any embarrassment for teenage learners and, at the same time, will make the teenagers feel that their families and schools really care (Darmody et al., 2010).

Teachers have stated the lack of support from educational media in helping raise awareness of critical thinking among teachers, students and families. Some teachers have suggested the need to consider the role of educational media in promoting critical thinking instruction. They claim that the media could play a great role in establishing a new set of educational films and TV shows that tell the stories of successful Omani teachers, with Omani students working collaboratively in our Omani schools to practice different methods of learning, including critical thinking. Collaboration between educators in the field and the people in the Omani media needs to be stronger so that both can improve teachers' motivation and awareness of different teaching techniques, equip students with different studying skills and help parents understand how to provide the needed support for their children's schooling.

Teachers also suggested there is a lack of support from businessmen in sponsoring the school and providing them with needed resources to teach critical thinking. Teachers have reported that businessmen should be involved more in all the school plans when financial aid is needed to provide resources to teach critical thinking. They should have representatives in schools attending regular school meetings. Consequently, they will have a clear picture of schools' aims for the students and community. Teachers reported that this might inspire businessman to support the schools with needed aid and so help to create learners who are independent and successful in learning to be critical thinkers.

5. Conclusions and Recommendations

The results of this study show that there is a lack in teachers' behavior that nurtures critical thinking skills. Thus, this study recommends that teachers should use effective questioning skills inside EFL classrooms. English teachers should make effective use of questions asked inside the classroom in order to support their students' learning of critical thinking skills. In addition, structuring the classrooms for critical thinking instruction provides the students' with a supportive environment that enhances their learning process. Thus, teachers should manage the classroom in a way that helps them teach critical thinking more effectively. With regard to the number of extra-curricular school activities, there is a need to consider the number of extra-curricular activities the teachers are responsible for in the school. Reducing the number of cross-curricular school activities the teachers are responsible for is suggested by the teachers so that they can devote more time and effort to planning their lessons to teach critical thinking skills. There is a need to establish a strong relationship between schools and parents to help promote the critical thinking instruction inside the school. EFL teachers suggest that parents should participate in parents' councils more effectively in order to receive the needed feedback on their children's' level at critical thinking from their teachers. There should be more cooperation between parents and social workers to deal with any behavioral issues and so help students overcome challenges to learning critical thinking skills. English teachers should use questioning that invites critical thinking inside their classrooms. Teachers should focus on asking more questions at the analysis, synthesis and evaluation levels in order create opportunities for students to practice critical thinking skills. The teachers should also structure their classrooms by arranging the classrooms' settings for individual, pair and group work. The teachers should encourage whole-group interaction by managing the resources of time, energy, space, and materials to facilitate critical thinking in their classrooms. Teachers should respond to their students' answers and work in a way that ensures a stress-free environment. This can be achieved by using positive reinforcement that rewards students' work in which requires students to practice critical thinking skills. In addition, teachers should focus on providing students with appropriate wait time to help them have the chance to think before they respond to any task in the class.

Teachers should be a role model for their students by being good critical thinkers themselves. Teachers should model behavior that reflects desirable intellectual skills and dispositions that teachers encounter in the day-to-day problems and strategies of the classroom and school.

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Appendicies:

Grade: …………………………Lesson: …………………………………………

Gender: ……………….…experience: …………………………………………

Appendix (A)

Teacher behavior that invites and enhances students' critical thinking

	Frequency of occurrence: Tally	Comments
Teacher behavior that invites students' critical thinking		
Poses questions/tasks at higher levels of Bloom's taxonomy.		
Analysis		
Seeking evidence for stated claims by asking students to clarify and justify their responses (e.g. Asking why do you think so?).		
Requires students to recognize inference/elements/main ideas, etc.		
Requires students to distinguish between relevant and irrelevant evidence		
Asks students to recognize insufficient evidence		
Asks students to distinguish between facts and opinions		
Evaluation		
Encourages students to transfer/ relate cognitive input/skills to everyday life/social context.		
Encourages students to reflect on their thought processes and work orally and in writing (e.g. using rubrics, SAH rating scales, etc.)		
Asks students to judge accuracy, adequacy, clarity, credibility, validity, worth, value, etc.		
Synthesis		
Encourages students to apply past knowledge or experience to **new** situations (create something new).		
Invites students to think hypothetically and creatively (e.g. posing "what if" or "suppose that" questions)		
Asks students to formulate designs, conclusions, stories, assumptions, etc.		

Teacher behaviors that enhance students' critical thinking skills		
Structuring the classroom		
Encourages students' interaction and cooperation to solve a problem or complete a task		
Encourages students to ask each other thought-provoking questions.		
Uses different class groupings for different activities to solve a problem or complete a task		
Uses a variety of visual media (e.g., charts, chalkboard, maps, pictures, gestures) to develop cognitive strategies		
Encourages students to answer each other's questions		
Displays creative works of students around the room		
Teacher response behavior		
Allows wait time (at least 10 seconds) for students' answers/reponses before restating or redirecting the question		
Allows time to consider/think about alternatives/points of view		
Rewards students for responding to open-ended questions		
Encourages incorrect student responses with supportive comments/behavior		
Accepts students' responses (reflections, opinions, thoughts, etc.) without judgment to encourage exploring possibilities		
Requires students to expand on answers.		
Encourages more than one student to give points of view / solutions/evidence		
Modelling		
Uses cognitive languages (e.g., compare, analyze, classify, predict, create)		
Shows enthusiasm for challenges and complex tasks requiring higher order thinking skills		
Uses clear/real examples/models to facilitate/explain/teach logical thoughts		

Appendix (B)

The Questionnaire

Please give your opinion related to the following aspects.

	Strongly agree	agree	neutral	disagree	Strongly disagree
The course book					
The teacher's book provides me with enough guidelines on how to teach critical thinking skills					
The course book includes suitable tasks that enhance critical thinking skills					
The course book includes acceptable number of tasks that enhance critical thinking skills					
I am satisfied with the critical thinking tasks provided by the curriculum					
School activity level					
I think the amount of work I do for the school activity is acceptable					
I think the activities level in the school facilitates teaching critical thinking skills in my classrooms					
I am satisfied with the number of school activities level I am responsible for in the school					
Classroom size					
The size of my classroom helps me teach critical thinking skills effectively					
The size of my classroom helps me give enough written feedback to my students while teaching critical thinking skills					
The size of my classroom helps me provide enough oral feedback to students while teaching critical thinking skills					
I am satisfied with my class size while teaching critical thinking skills					
Training provided to teachers about critical thinking skills					
I received enough training about how to teach critical thinking skills					
I received enough training about how to teach critical					

thinking skills provided by my senior teacher					
I received enough follow up and feedback from my supervisor about how to teach critical thinking skills					
I am satisfied with amount of training I received about how to teach critical thinking skills					
I am satisfied with amount of follow up I received from my supervisors about how to teach critical thinking skills					

Are there any other challenges that you face while teaching critical thinking skills? If yes please write them down.

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