

Examining Teachers' Perceived Barriers to the Integration of Critical Thinking in Moroccan High Schools

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Abstract:

Several scholars acknowledge that the ability to think critically and process new information is a skill that must be learnt in order to challenge a rapidly changing world. It is important to enhance students' critical thinking skills to help them be successful in their upcoming life plans in numerous domains. In other words, integrating critical thinking skills in schools is not only a way to assist learners obtain favorable outcome in schools, but it is also crucial if learners are going to be able to operate in an increasingly difficult world. However ; little attention has been given to examine strategies that can help teachers incorporate critical thinking skills in education. This paper attempts to address the importance of critical thinking in education. Besides, it aims to discuss the issue of teaching critical thinking for the 21st century students learning English as a foreign language. Finally, the paper addresses elements that prevent the improvement of critical thinking in classrooms.

Keywords: *Critical Thinking, Implementation, Barriers, Teachers, High school*

1. Introduction

Critical thinking is very important in the area of education, since it is an essential instrument of inquiry, for solving problems and making good decisions (Simpson and Courtney 2002). Also, through applying critical thinking in learning and social practice, students can become more open-minded and creative in discovering the best method of learning and solving problems (Tiwari et al. 2006). In this regard, it is essential to say that the notion creativity is very essential in education. It is for this

intention that creativity cannot be “ignored or suppressed through schooling” (Poole, 1980). It is for this aim that there is a need for its incorporation in education as a “fundamental life skill” (Craft, 1999). Boden (2001) made a distinction between three kinds of creative thinking: combinational, exploratory, and transformational creativity. Combinational creativity incorporates fresh ideas by associating old ideas, whereas exploratory creativity examines new potential by appropriate rules and generates exclusive ideas. The third type of creative thinking is transformational creativity which creates more crucial interchange of the new notions and leads to considerable progress. According to Smith (1990), one basic distinction between creative and critical thinking is that “the generation of alternatives is a creative activity, and the selection among them must be critical” (p. 101).

One of the essential terms used in the discussion of critical thinking is metacognition. Meta-cognition involves that the thinker guides and manages his thinking (Baker & Cerro, 2000). Metacognition is “the monitoring and control of thought” (Martinez, 2006, p. 696). That is to say, it is “the knowledge and control children have over their own thinking and learning activities” (Cross & Paris, 1988, p. 131). Along similar lines, it was described as thinking about one’s thinking through a regular process of analyzing, self-monitoring and evaluating one’s reaction to information in an effort to more clearly comprehend new knowledge (Sternberg, 1998). Suchanova (2007), however, defines metacognition as the “learners’ automatic awareness of their own knowledge and their ability to understand, control and manipulate their own cognitive processes” (p.6). In other words, metacognitive awareness includes monitoring and reflecting on an individual’s way of thinking, involving how and when to make use of particular procedures to solve problems (Santrock, 2007).

Stapleton (2011) highlighted that while various experts assume we are failing to promote critical thinking, others admit that critical thinking, which includes making use of knowledge to make decisions and being reflective, is a skill vital for progress in the 21st century. Ghanem (2004) views critical thinking as involving a set of skills that could be learned, practised, and mastered, which are displayed in the ability to evaluate data and verify opinions, taking into account all the distinctive views related to the issue under investigation. In this respect, Resnick (1985) proposes that thinking skills may be generic “certain kinds of higher-order thinking may be seen in the performance of highly-skilled individuals whether they are doing mathematics, reading, solving scientific problems, composing essays or repairing equipment. Experts elaborate and reconstruct problems into new forms; they look for consistencies and inconsistencies in proposed solutions; they pursue implications of initial ideas and make modifications rather than seeking quick solutions and sticking with initial ideas; they reason by analogy to other similar solutions.” (p.15). According to Paul (1995), the dispositions are a crucial section of critical thinking. Without being open-minded and respectful of others and perspectives, critical thinking does not surpass egocentric and socio-centric thinking, which is perceived as critical thinking in the weak-sense according to Paul.

In the past, it was contended that critical thinking has gained the greatest consideration from both academics and practitioners in the field of education (McPeck, 1981). In fact, Norris (1985) emphasizes that critical thinking is not an educational choice and all learners should be taught to think critically ; traditional methods of the simple transfer of information and learning by rote are no longer adequate. Dewey (1938) stated that learning to think is the primary aim of education. Indeed, Ashraah, AL-Nabrawi, Shdeifat and Al-Ali (2012) state that education systems in nearly all over the world are switching their aim attention at developing students' higher mental processes including critical thinking, and problem solving. In other words, the focus has been changed from transmitting knowledge and content to the students, to developing their thinking skills. Hence, teachers are recommended to instill the skills into their learners as “ ...students will need the critical thinking skills necessary to evaluate the likely credibility of the information, the ability to compare and contrast multiple sources of information, and the ability to synthesize information across sources.” (Taffe and Gwinn, 2007 :59)

The main objective of this study is to examine difficulties hindering teachers' use of critical thinking in their classrooms. This research seeks to answer the following research question :

RQ. What are the barriers towards the use of critical thinking in classroom practice ?

2. Literature Review

Critical thinking is a crucial and required skill because it is necessary in the workplace, it can assist individuals deal with mental and spiritual questions, and it can be employed to evaluate people, policies, and institutions, thereby escaping social problems (Hatcher and Spencer, 2005). If the objective of our contemporary education system is to generate educated citizens, then the teaching of critical thinking is required since the skill to think critically is a symbol of an educated individual (Brookhart,2010). To cultivate graduates who are able of performing and striving in today's society, specific 21st century skills have been described as crucial, involving critical thinking, problem solving, decision making, collaboration, and information and communication technology literacy (Roschelle et al., 2011). Many experts including Scheffer and Rubenfeld (2005) proposed that the basic features of critical ability contain identifying and challenging assumptions, imagining and exploring possible choices, declaring the critical thinker's self-worth and listening carefully to others. Along similar lines, Moon (2008) affirmed that critical thinking is this very capacity to work easily with complicated ideas and circumstances in offering efficient evidence to defend an acceptable decision.

Teaching critical thinking does not involve teaching it as a philosophical notion, because the content of critical thinking is endless (Facione, 2000). The main goal of teaching thinking is to teach 'for and about' it (Facione, 2000). 'Teaching about' stands for instruction in consistent skills and how to put them into use to solve problems. The intention of 'teaching for' is to grow the chances for, set up suitable attitudes towards and develop the learners' enthusiasm to employ those skills and engage in critical thinking. Teaching for critical thinking competence requires a

philosophical switch in focus from learning to thinking (Chun, 2010). Lemov (2010) states that memorization and learning of essential skills are vital to critical thinking functions. "The more proficient you are at lower order skills, the more proficient you can become at higher order skills" (p.19). Yuretich (2004) said that offering learners a critical thinking chance, for instance, giving them the time to pause, reflect on, analyze and discuss a topic in a context which encourages and values critical thinking, is the clue to critical thinking education.

Admittedly, there are numerous elements that prevent the improvement of critical thinking abilities. Kowalczyk, et al. (2012) explained four barriers when integrating critical thinking skills within the classroom. "The most frequently reported obstacles were: (1) the need to deliver a large amount of information to cover content; (2) student concerns of getting a good grade vs actually learning the content; (3) insufficient time for instructors to learn new teaching methods; and (4) lack of student motivation to become critical thinkers" (p. 231). Therefore, Kowalczyk et al. (2012) propose that "teachers should review the content material and, more importantly manipulate it to focus on critical thinking strategies" (p. 234).

Further barriers to the integration of critical thinking in education include society (Bataineh & Alazzi, 2009), educational background, social class, school engagement of parents, (Lauer, 2005), classroom atmosphere (Kelly, 2009) and teacher perceptions (Burke et al., 2007). Snyder and Snyder (2008) highlight four essential barriers that stop teachers from making use of critical thinking in education : 1) lack of training ; 2) lack of information ; 3) personal beliefs and preconceptions ; and 4) time constraints. Indeed, Bensley and Murtagh (2012) declared that "although someone may have critical thinking skills and be disposed to use them, that person will be less likely to use the skills appropriately if unaware of when to use them or if lacking knowledge for how to deploy them in a particular situation" (p.6).

Obstacles in implementing critical thinking within the classroom may also be due to the teacher's lack of knowledge about theory and acquisition of critical thinking skills and attitudes (Schaber & Shanedling, 2012). Teachers' personal beliefs and values maybe a preventing aspect as well (Dickerson, 2005). Courses may lack obvious goals, poor course design, time constraints and large amounts of content (Schaber & Shanedling, 2012). Learners' motivation, eagerness and enthusiasm to learn, along with personality features, cultural competency, and community background may be determinants that present obstacles when integrating critical thinking into the classroom (Broadber & James, 2000). In a survey carried out by Alagozlu (2007) to Turkish EFL learners who experience some obstacles in expressing their voice in written documents, he contended that "since the traditional instructional process urges the students to receive ready-made information without questioning, they [students] are not encouraged to think critically, which is probably transferred into ELT classes as well" (p. 185).

3. Research Methods

This part of the paper outlines the methodology used to examine teachers' use of critical thinking in foreign language education classrooms. The purpose of this study

is to examine teachers' practice of critical thinking in Moroccan high schools. The participants completed a survey questionnaire to find out barriers that stop them from implementing critical thinking in their classes. 423 participants took part in this investigation from different Moroccan high schools.

This study aims to answer the following research question :

RQ. What are the barriers towards the use of critical thinking in classroom practice ?

3.1 Teachers' Demographic Characteristics :

The first part of the survey questionnaire collects information about teachers' demographic characteristics such as age, gender, years of teaching experience, educational background and training.

As can be seen from the figure below, the majority of the participants were male representing 62,65% of the respondents, whereas 37,35% were female (N= 158).

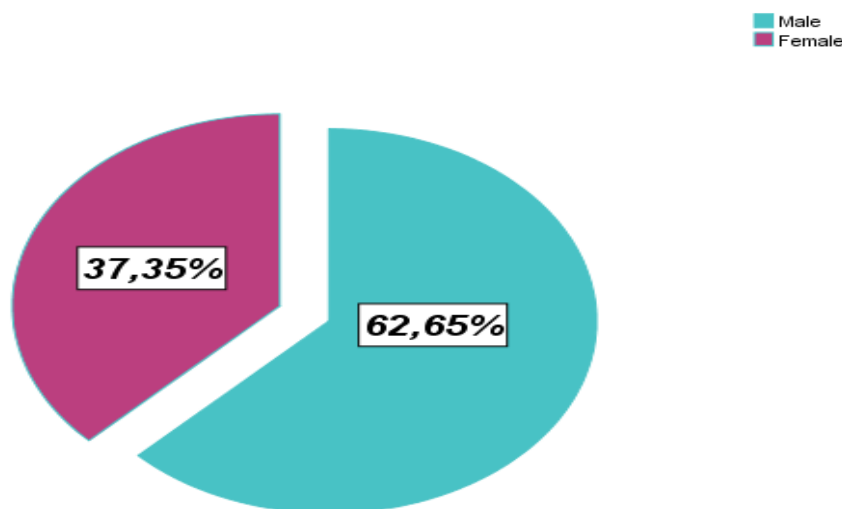


Figure : 1. Gender distribution of the participants

The age of the respondents ranged from 20 to 60 years or above. It can be clearly seen from figure 2 that the age range of 30-39 years (N=146) had the highest percentage representing 34,52% of the respondents. The lowest percentage of participants (10,40%) was in the age of 60 years or above (N=44).

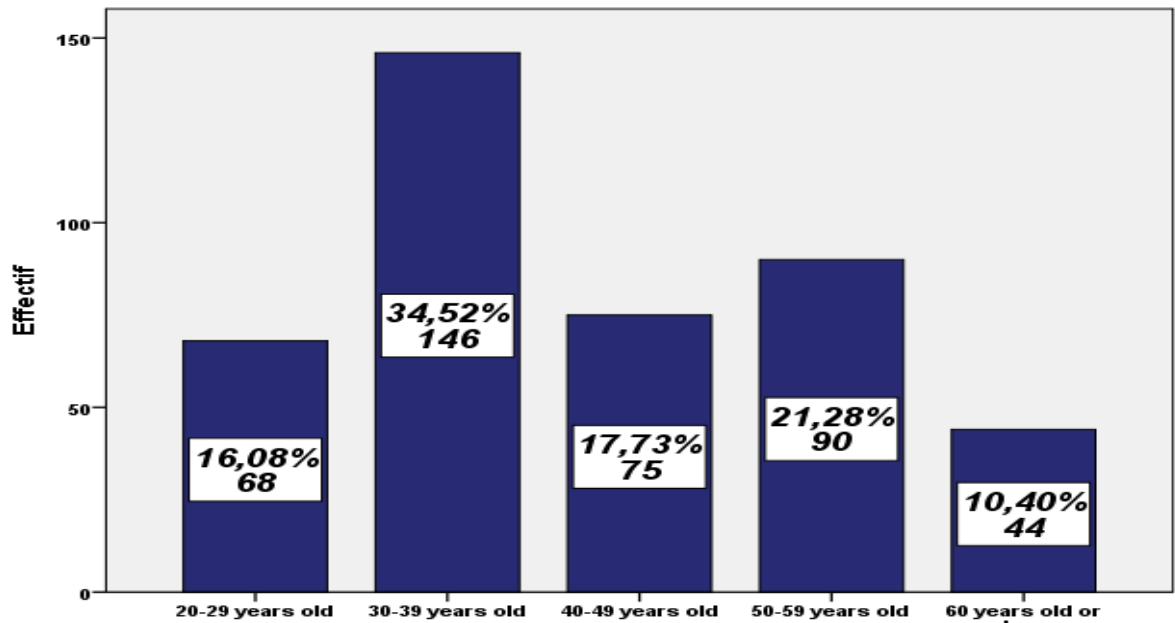


Figure :2. Age distribution of the participants

The results shown in figure3 indicate that the majority of the participants hold a master's degree (N=273), whereas 12 English language teachers hold doctorate's degree.

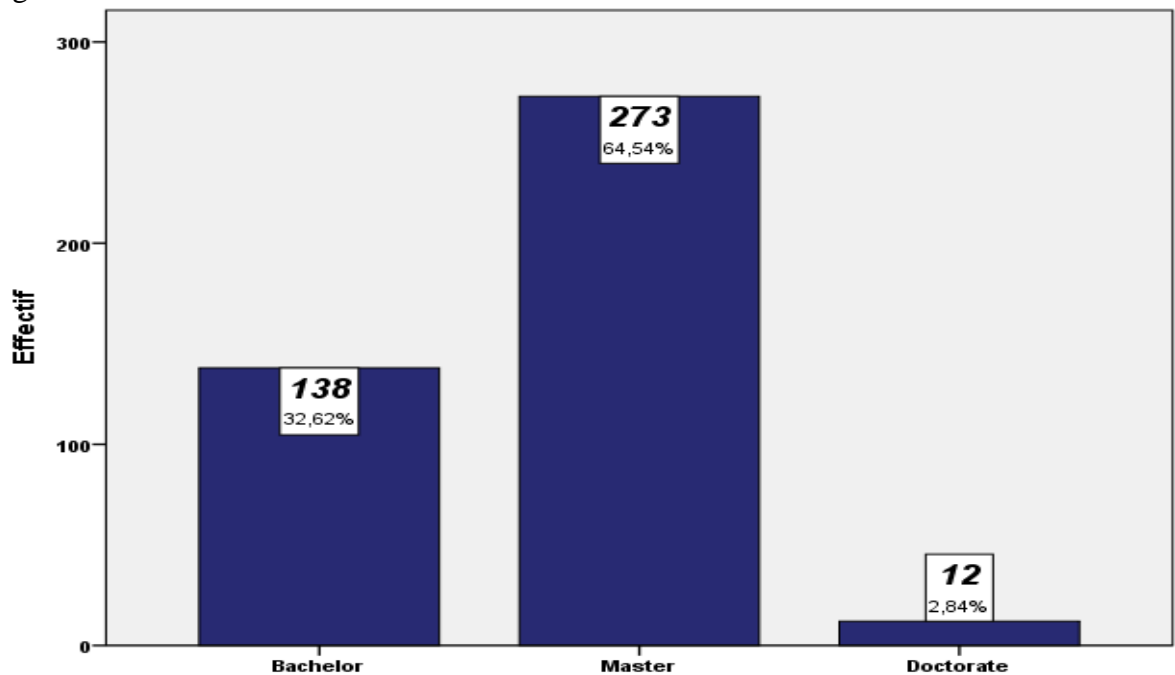


Figure 3. Response frequencies for participants' educational background

As far as the teaching experience of the participants, figure 4 indicates clearly that (N=104) respondents have more than 25 years of experience. This result shows that the respondents in this examination are experienced.

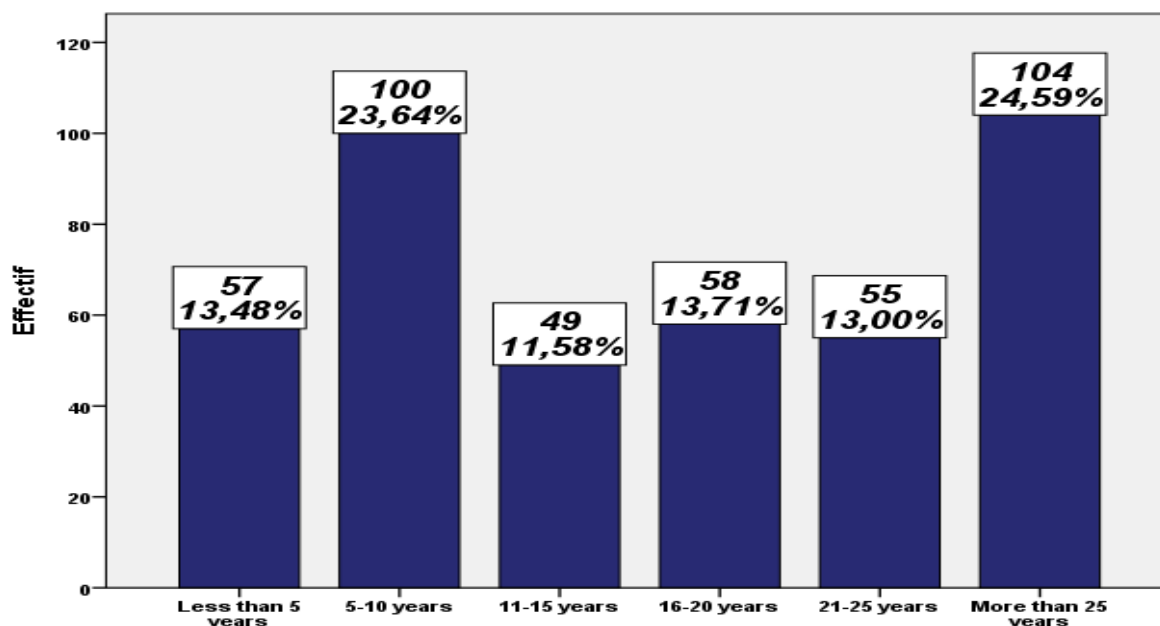


Figure 4. Response frequencies for participants' teaching experience

As to teachers' training in critical thinking, the findings showed that the majority of the participants (N=320) received no training in critical thinking.

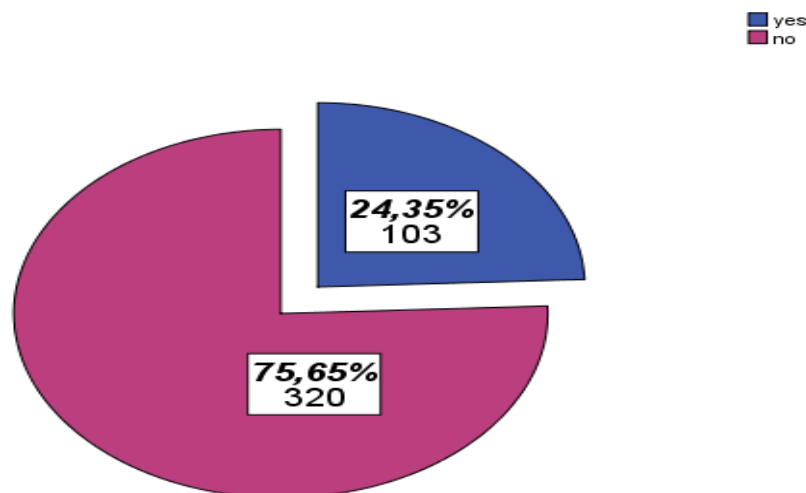


Figure 5. Response frequencies for participants' training in critical thinking

4. Findings and Discussion

Having examined the methodology applied and the instrument used to gather data, this section presents the findings obtained in the study and highlighted their significance.

4.1 The findings related to the research question.

The data collected is used to answer the following research question:

RQ. What are the barriers towards the use of critical thinking in classroom practice ?

To answer this research question, the survey questionnaire involves 27 elements. The items were based on a 5-point Likert scale in which each point was given a numerical value ranging from : 1 = No opinion, 2 = No impact, 3 = Slight impact, 4 = Considerable impact, 5 = Great impact. High scores on each item represented that the barrier has a great impact on teachers' use of critical thinking, whereas lower scores revealed slight or no impact. The statements were classified into four sub-sections: (1) Teacher level barriers (items 1 to 9); (2) School level barriers (items 10 to 16), (3) Students level barriers (items 17 to 20), and (4) Curriculum level barriers (items 21 to 27).

4.1.1 Teacher level barriers

Table 1. indicates clearly that there are different barriers impacting teachers' use of critical thinking in the classroom. In fact, 66,9% of the respondents highlighted that time constraints had great influence on their use of critical thinking with their students. Similarly, 57,9% of the respondents revealed that lack of incentives had considerable influence on their integration of critical thinking. Another 53,4% of the participants confirmed that lack of information had considerable impact on the implementation of critical thinking in education. Besides, nearly half of the respondents 49,9% admitted that insufficient teacher self-training had considerable influence on their integration of critical thinking.

Table 1. Teacher level barriers

N°	Teachers'barriers towards critical thinking	No opinion	No impact	Slight impact	Considerable impact	Great impact
1	self-efficacy	7,8	56,0	25,8	9,0	1,4
2	resistance to change	4,2	54,8	28,4	10,2	2,4
3	time constraints	0,7	2,4	9,9	20,1	66,9
4	lack of information	1,4	5,4	13,8	53,4	26,0
5	preconceptions about the content	10,6	21,7	34,8	29,6	3,3
6	personal bias	35,2	44,7	11,6	6,6	1,9
7	Insufficient teacher self-training	1,4	6,1	14,2	49,9	28,4
8	lack of incentives	3,8	7,1	14,9	57,9	16,3
9	lack of collaboration among colleagues	1,4	5,7	9,9	40,2	42,8

4.1.2 School level barriers

Table 2. shows that large class size was one of the school level barriers that had great impact 83,5% on teachers' use of critical thinking. Another significant barrier that had great impact on teachers' integration of critical thinking was lack of administrative support 60,0%. Moreover, 58,6% of the participants contended that lack of training provided by the school had great impact on their use of critical thinking. Nearly 58% of the respondents (57,9%) admitted that lack of resources had considerable impact on their use of critical thinking. More than half of the participants 51,5% indicated that classroom atmosphere had considerable impact on their use of critical thinking.

Table 2. School level barriers

N°	Teachers'barriers towards critical thinking	No opinion	No impact	Slight impact	Considerable impact	Great impact
10	lack of administrative support	2,1	3,9	7,8	26,2	60,0
11	large class size	1,0	1,4	3,5	10,6	83,5
12	lack of training provided by the school	1,4	4,0	6,1	29,9	58,6
13	isolation and lack of networking	2,6	17,7	45,4	29,1	5,2
14	lack of resources;	0,7	3,1	19,6	57,9	18,7
15	classroom atmosphere	1,0	3,8	19,6	51,5	24,1
16	lack of school policy	5,4	4,0	19,9	51,1	19,6

4.1.3 Students level barriers

Table 3. revealed that 73,0% of the respondents contended that student concerns of getting good grades had great impact on their use of critical thinking. About 40% of the participants 38,3% showed that lack of students motivation to become critical thinkers had considerable impact on teachers' use of critical thinking. Another 37,4% of the respondents indicated that the view that only specific learners are able to think critically had considerable impact on the implementation of critical thinking.

Table 3. Students level barriers

N°	Teachers'barriers towards critical thinking	No opinion	No impact	Slight impact	Considerable impact	Great impact
17	lack of students motivation to become critical thinkers	3,8	3,5	29,1	38,3	25,3
18	the view that only specific learners are able to think critically	6,8	7,8	41,4	37,4	6,6
19	student concerns of getting good grades	1,4	2,0	6,1	17,5	73,0
20	students are not given enough time to think in class	4,4	13,0	38,8	36,9	6,9

4.1.4 Curriculum level barriers

Table 4. showed that 77,3% of the participants admitted that the need to cover all the content (workload) had great impact on their use of critical thinking. Also, 69,5% of the respondents confirmed that lack of critical thinking activities in the textbook had great impact on the implementation of critical thinking in education. More half of the participants 52% indicated that the emphasis of curriculum on grammar had considerable impact on teachers' use of critical thinking. Another 40,7% of the respondents showed that poor course design had considerable impact on the integration of critical thinking.

Table 4. Curriculum level barriers

N°	Teachers' barriers towards critical thinking	No opinion	No impact	Slight impact	Considerable impact	Great impact
21	regular change in the curriculum	14,9	9,5	35,9	33,3	6,4
22	courses may lack obvious goals	14,4	5,9	35,5	40,7	3,5
23	the need to cover all the	0,2	2,6	4,8	15,1	77,3

	content (workload)					
24	poor course design	14,4	4,7	33,1	40,7	7,1
25	critical thinking skills are excluded from the educational process	6,0	3,5	36,4	41,8	12,3
26	lack of critical thinking activities in the textbook	0,5	3,3	5,9	20,8	69,5
27	curriculum lays emphasis on grammar	2,6	3,8	34,0	52,0	7,6

Actually, there are numerous possible explanations for the difficulties hindering teachers' use of critical thinking in their classes. The first explanation is related to lack of training. In fact, teachers' demographic characteristics of respondents of the present study revealed that more than 75% of the participants received no training in critical thinking. Another possible explanation is concerned with lack of time. In fact, 66,9% of the respondents mentioned that time constraints had great influence on their use of critical thinking with their learners. This indicates that because of the need to cover all the content, teachers don't have sufficient time to prepare activities that require students to think critically. A further explanation for the obstacles preventing teachers from using critical thinking in education is related lack of critical thinking activities in textbooks. 69,5% of the participants stated that lack of critical thinking activities in the textbook had great impact on their use of critical thinking in teaching.

5. Conclusion and Implications

This research was designed to examine barriers that stop English language teachers from using critical thinking in education. So as to reach this objective, the following research question was developed: "What are the barriers towards the use of critical thinking in classroom practice?". The questionnaire was used in this research to collect data. A pilot study has been performed before the actual collection of data to evaluate the instrument. A pilot study has been conducted in this work with 30 participants. These respondents were volunteers from the target population. The participants were asked to fill in the questionnaire and highlight any unclear items. Admittedly, all the respondents mentioned that the items in the questionnaire were obvious. An online version of the survey questionnaire was used to achieve high response rate and reach different teachers from different locations. A total of 423 participants were involved in the study from different Moroccan high schools.

Results indicated that there are many obstacles that stop English language teachers from using critical thinking with their learners. Indeed, lack of successful integration of critical thinking in classrooms was attributed to the following difficulties : large class size, the need to cover all the content (workload), student concerns of getting good grades, lack of critical thinking activities, time constraints, lack of training provided by the school, lack of administrative support. This result is consistent with Snyder and Snyder (2008) who discovered four barriers that prevent teachers from integrating critical thinking in teaching including: "(1) lack of training, (2) lack of information, (3) preconceptions, and (4) time constraints" (pp. 92-93). Also, findings of the present study tend to support the work of Kenney (2013) who

discovered that “teachers might shy away from teaching critical thinking to their gifted readers because they, themselves, do not feel that their own skills are adequate” (p.30).

Based on the findings of the present study, a number of implications related to critical thinking integration in Moroccan high schools can be drawn from this piece of research. These can be summed up as follows:

1. Critical thinking should be introduced in all Moroccan high schools.
2. It is suggested that more emphasis should be paid to the development of critical thinking, instead of focusing on elements to be memorised.
3. All teachers need to be trained in how to teach critical thinking in their classes in their pre-service and in-service education.
4. Teachers need administrators and supervisors who place more emphasis on critical thinking. Administrators should provide teachers with resources necessary for the successful integration of critical thinking in education.
5. Administrators themselves should be provided with training, especially on the importance of improving thinking skills so to provide the right conditions for critical thinking improvement in their schools.
6. Teachers should use more open-ended questions to inspire learners to think critically.
7. From the viewpoints of teachers, training students to think critically and motivating them to participate in critical thinking activities should be among the principle tasks of the educational system.
8. Having an understanding of what really happened in the classroom will surely help to shape the development of critical thinking in education.
9. Textbooks need more critical thinking activities and open-ended questions that will inspire students to think critically.
10. Some teachers consider students' lack of interest and motivation in participating in critical thinking activities as constraints on improving thinking skills. Teachers should be trained on to encourage their learners to overcome this difficulty.
11. Teachers should attend conferences and workshops that deal with critical thinking integration in education.

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