

## Teachers' Practices of Critical Thinking in the Algerian Secondary School EFL Classroom

### Pratiques de la pensée critique par les enseignants en classe d'Anglais langue étrangère au cycle secondaire en Algérie

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#### Abstract

Critical thinking (CT) is unanimously considered to play a pivotal role in individuals' academic life. This paper investigates the teachers' practices of CT in the Algerian EFL secondary school classroom. It aims mainly at examining the teachers' implementation of CT through two procedures: Socratic questioning and Bloom's taxonomy, hypothesizing that if teachers use Socratic Questioning and Bloom's Taxonomy, CT would be implemented and learners' CT skills would be fostered. To fulfill the purpose of this study, a questionnaire is administered to 20 secondary school teachers. The results revealed the teachers' awareness of the importance of CT skills and the effectiveness of using Socratic Questioning and Bloom's Taxonomy in fostering CT in EFL classroom despite the absence of a guiding and motivating framework for its implementation.

**Keywords:** Critical thinking- Bloom's taxonomy- Socratic questioning

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#### Résumé

La pensée critique est unanimement considérée comme ayant un rôle central dans la vie académique des individus. Cette étude examine les pratiques des enseignants d'Anglais comme langue étrangère au cycle secondaire en Algérie en terme de mise en œuvre de la pensée critique à travers deux procédures : la taxonomie de Bloom et le questionnement Socratique. Cette recherche est basée sur l'hypothèse que si les enseignants utilisent la taxonomie de Bloom et le questionnement Socratique, la pensée critique serait implémentée et les compétences critiques des apprenants seraient consolidées. Pour remplir l'objectif de cette étude, un questionnaire est remis à 20 enseignants du secondaire. Les résultats ont révélé que les enseignants étaient conscients de l'importance des compétences en matière de pensée critique et de l'efficacité de l'utilisation de la taxonomie de Bloom et du questionnement Socratique dans la classe d'Anglais comme langue étrangère ; malgré l'absence de cadre directeur et motivant pour sa mise en œuvre.

**Mots clés :** Pensée critique- taxonomie de Bloom- questionnement Socratique.

#### ملخص

هناك اجماع حول الدور المحوري الذي يلعبه التفكير النقدي في الحياة الأكاديمية للأفراد. يدرس هذا البحث ممارسات الاساتذة لتفعيل التفكير النقدي في تعليم اللغة الانجليزية كلغة اجنبية بالطور الثانوي في الجزائر. ويهدف بشكل اساسي الى فحص تطبيق التفكير النقدي من خلال اجراءين: تصنيف بلوم وطرح الاسئلة السقراطية بافتراض انه اذا ما استخدم الاساتذة تصنيف بلوم والتساؤل السقراطي، فانه سيتم تفعيل التفكير النقدي وتعزيز المهارات النقدية لدى المتعلمين. لتحقيق هذا الغرض من هذه الدراسة، تم توجيه استبيان الى 20 استاذ من الطور الثانوي. كشفت النتائج عن وعي الاساتذة بأهمية مهارات التفكير النقدي وفعالية استخدام تصنيف بلوم والتساؤل السقراطي في تعزيز التفكير النقدي لدى المتعلمين على الرغم من غياب إطار توجيهي وتحفيزي لتفعيله --

**الكلمات المفتاحية:** التفكير النقدي - تصنيف بلوم -  
التساؤل السقراطي

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## **Introduction :**

Critical thinking (CT) is a *sin qua non* in the learning process of English as a foreign language. In fact, establishing a learning environment that facilitates the promotion of CT skills is considered as a vital goal of every educational program worldwide (Asgharheidari & Tahriri, 2015). By thinking critically, EFL learners are more likely able to make better quality decisions and to come up with more innovative solutions that lead them to communicate effectively in different contexts. To think critically not only stems from a person's higher-order thinking ability, but it has a connection to cognitive processes and outside influences (Mango, 2010, as cited in Murray, 2006 p.19) It is important for teachers, then, to try to decide over frameworks and tools to target the higher thinking skills (HOTS) of EFL learners by developing classroom activities based on analysis, synthesis and evaluation (problem solving activities). There exists a large body of theories that can help educators instill CT skills in EFL learners like Gardner's multiple intelligences theory (1983), Ennis' (1985b) and Facione's (1990) taxonomy of CT skills. In this research paper; However, Socratic Questioning and Bloom's Taxonomy are the two suggested frameworks within which teachers' practices to trigger learners' CT skills are investigated.

## **I. Literature review:**

### **I.1. Critical Thinking**

The term critical thinking (CT) has been given a range of definitions that stemmed from different disciplines like philosophy, psychology, and educational approaches. A review of the literature reveals a plethora of definitions for critical thinking. In its earliest times, CT was first associated with the different works of Socrates, Thomas Aquinas, John Locke and Sir Issac Newton. More modern research about critical thinking, on the other hand, is mainly attributed to John Dewey (1859-1952), Jean Piaget (1936), Benjamin Bloom (1956), and many others. For example, Dewey, the American philosopher, psychologist and educational reformer, claimed: «The only significant method is the method of the mind as it reaches out and assimilates» (Dewey, 1910:9, cited in Murray, p.19). For Robert Ennis, critical thinking can be defined as “reflective and reasonable thinking that is focused on deciding what to believe or do” (Ennis, 1985, cited in Tosuncuoglu, 2018 p.26). Ruggiero (2012:4), cited in Murawski, 2014 p.25) described thinking as “any mental activity that helps formulate or solve a problem, make a decision, or fulfill a desire to understand. It is a search for answers while reaching for meaning”. To state it differently, when thinking critically, people use some cognitive strategies so as to move from the stage of thinking about the problem to the stage of solving it and making decisions about future actions. Similarly, Fuquen and Jiménez (2013:147-148), stated that CT is a cognitive process in which people employ mental and meta-cognitive skills to be able to make analysis, reflections, decisions, and to take actions so as to reach a favorable outcome.

The concept of CT can be further expressed in similar various ways. Sternberg, Roidlger III and Halpern (2007) found that it encompasses the use of cognitive skills and strategies to increase the possibility of a desirable outcome. It is also regarded as a description of thinking that is mainly purposeful, reasoned and goal directed in a sense that it goes beyond the limits of accepting things as they are presented. That is to say, CT is more than being passively thinking for it involves solving problems and coming up with final decisions after considering and calculating other possibilities of a given thinking task. (Sternberg et al., 2007:6) further argued that higher order cognitive skills can be used to refer to CT skills. Higher order thinking is mainly complex because it focuses on the use of judgment, analysis and synthesis and not on the mere application of the already learned rules in a mechanical manner.

Critical thinking is a process that involves analyzing and assessing thinking for the sake of developing it. (Elder & Paul, 2010:38). In this context, the learners' critical thinking skills should help them improve their reasoning and thinking

capacities to make learning meaningful and purposeful. On the other hand, Ragins and Cotton, 1999, stated that if students are to function successfully in a highly technical society, they must be equipped with lifelong learning and thinking skills essential to acquire and process information in an ever changing world. In fact, learners should acquire the knowledge and the skills that are useful both within the boundaries of the classroom and outside in real life situations as a means for being fully engaged in the social context and to cope with the changing nature of the world.

### **I.2. Bloom's Taxonomy:**

Benjamin Bloom (1956) was an American educational psychologist who edited his first volume 'Educational Objectives: The Classification of Educational Goals' where he has introduced the most famous classification of learning called 'Bloom's Taxonomy'. It is generally used in creating curriculum and planning syllabi. It deals with categorising a number of skills that can help to teach critical thinking. Bloom's Taxonomy is divided into two types of thinking. The first one is the lower order thinking that includes knowledge, comprehension and application. The second one is the higher order thinking like analysis, synthesis and evaluation. On the same line of thoughts, critical thinking skills are fundamental part of both higher and lower order thinking as defined by Bloom (1956). Critical thinking itself is made of two elements. The first part is to generate information which is related to the lower order thinking. However, the second part is about using these information and skills to guide behaviours which is related to the higher order thinking (Sullivan, 2020). To think critically, the thinker must go through the six level of Bloom's taxonomy:

1. **Knowledge:** In the knowledge level, learners collect information they have read or heard.
2. **Comprehension:** In this level, learners are able to explain and interpret facts and ideas.
3. **Application:** In the application level, learners are required to use and the information they have already learned in a different context.
4. **Analysis:** In this level, learners go beyond the knowledge and break down the information into patterns of its components that can help them to analyse a problem.
5. **Synthesis:** this level is concerned with applying the given information to create new theories or predictions.
6. **Evaluation:** This is the last level which is called top level where learners are supposed to assess the input of the information and come up with a conclusion such as the value.

By following these levels and scaffolding critical thinking skills through the implementation of CT in the EFL classroom, learners will be able to analyse and compare elements. This would help them to develop their critical thinking skills outside the classroom. It would also lead them to think openly and actively in everything they do, not only in English language learning.

### **I.3. Socratic Questioning:**

Paul and Elder (2007) have introduced the Socratic questioning as: "a disciplined questioning that can be used to pursue thought in many directions and for many purposes". It is a learning centred approach which urges the learner to foster his critical thinking and be a part of an analytical discussion that develops their independent learning and thinking. Socratic questioning and critical thinking are closely interrelated since both share a common end (Paul & Elder, 2007). The major goals of critical thinking are to introduce the conceptual tools for understanding how the mind works and to set an additional level of thinking and a vigorous inner voice of reason (Paul & Elder, 2007). On the other hand, Socratic questioning aims at using those tools to set the essential questions for the pursuit of meaning and thought and at refining that inner voice through the emphasis on self-directed, disciplined questioning (Paul & Elder, 2007). The best way to use Socratic questioning to foster learners' critical thinking inside classrooms is to employ the Taxonomy of Socratic

questioning created by Richard Paul who systemized and structured questions into six types as follows:

- ◆ **Questions for clarification or conceptual understanding:** Why do you say that? What do you mean by...? How does this relate to our discussion?
- ◆ **Questions that probe assumptions:** What could we assume instead? How can you verify or disapprove that assumption? On what basis do we think this way?
- ◆ **Questions that probe reasons and evidence:** What would be an example? What is... analogous to? What do you think causes to happen...? Why?
- ◆ **Questions about Viewpoints and Perspectives:** What would be an alternative? What is another way to look at it? Why is the best? What are the strengths and weaknesses of...? How are...and ...similar? What is a counterargument for....?
- ◆ **Questions that probe implications and consequences:** What generalizations can you make? What are the consequences of that assumption? What are you implying? How does...affect...? How does...tie in with what we learned before?
- ◆ **Questions about the question:** What was the point of this question? Why do you ask this question? What does...mean? How does...apply to everyday life.

This questioning taxonomy encourages learners to be good thinkers and read between the lines, not just accept the information presented to them. Moreover, it helps researchers to investigate the inclusion of such questions in the activities carried out in the EFL classroom in order to raise learners' critical thinking.

#### **I.4. The Importance of Teaching Critical Thinking:**

Since Critical Thinking is the ability to think clearly and rationally, it is in fact of a crucial importance whatever we choose to do or what we are willing to do. Whatever the domain is, education, research, finance, management or the legal profession, critical thinking is obviously fundamental. Critical thinking skills are not restricted to a particular subject area. Being able to think well and solve problems systematically is an asset for any field, discipline or career. It, in short, teaches a variety of skills that can be applied to any situation in life that calls for reflection, analysis and planning, it is then bound with problem-solving and decision-making (after going through reasoning and an evaluation of the situation) as results of an effective critical thinking. In short, it helps people to think creatively '*outside the box*' and keeps them away from becoming narrow. (Rayhanul, 2015)

Critical Thinking enhances language, accuracy and public-speaking skills. Thinking clearly and systematically can improve the way people express their ideas, and make them more confident to share with others in learning how to analyze the logical structure of texts. Critical thinking also improves comprehension abilities in general. (Rayhanul, 2015)

Critical Thinking promotes creativity. To come up with a creative solution to a problem involves not just having new ideas, or rushing to get rid of the struggles faced, however, it must be the case that those new generated ideas are useful and relevant to the task at hand. Critical thinking plays a crucial role in evaluating new ideas, selecting the best ones, modifying them if necessary and most importantly, adapting them to the surrounded circumstances so that to fit them properly. (Rayhanul, 2015)

Critical Thinking is crucial for self-reflection. In order to live a meaningful life and to structure our lives accordingly, we need to justify and reflect on our values and decisions. Critical thinking provides the tools for this process of self-evaluation. It prevents from acting spontaneously and allows more opportunities to act appropriately with fewer mistakes. (Rayhanul, 2015)

Moreover, Critical Thinking is very important in the new knowledge technology. The global knowledge is nowadays driven by information and technology. One has to be able to deal with changes quickly and effectively and adapt their skills

accordingly. The new technology places increasing demands on flexible intellectual skills, and the ability to analyse information and integrate diverse sources of knowledge in solving problems. Good critical thinking promotes the use of such thinking skills, and is very important in this fast-changing world. (Rayhanul, 2015)

In education however, critical thinking skills can also enhance students' academic performance. Dewey (1910) declares that the primary purpose of education is to learn how to think, and Brookfield (2011) also explains that critical thinking is one of the major objectives of education since learning to think critically can help students resolve ambiguity and embrace or adapt to continuous social, cultural and technological change.

According to Elder and Paul (1996), 'students who know how to analyse and critique ideas are able to make connections across disciplines, see knowledge as useful and applicable to daily life and understand content on a deeper, more lasting level' 'One simple example of critical thinking activities in EFL classes is the implementation of Bloom's taxonomy (1956) were learners analyse an instruction based on many aspects of the language and go through different phases to reach the solution.

In addition to that, the use of critical thinking helps learners to become broad and adventurous thinkers, generate innovative solutions for their daily struggles or inside the classroom, use their reasoning skills to analyze and evaluate, in addition to planning and thinking strategically.

The ultimate goal of education is to prepare learners to be future effective citizens. In sum, critical thinking enables students to:

- ◆ Think about and evaluate their own thinking and behavior on issues related to health education, physical education, and home economics.
- ◆ Make reasonable and defensible decisions about issues related to individual and the community well-being.
- ◆ Challenge and take action (individually and collectively) to address social, cultural, economic, and political inequalities.
- ◆ Understand the role and significance of the movement culture and its influence on our daily lives and the lives of people in our community.

A good critical thinker knows how to separate facts from opinions, how to examine an issue biases. In addition to that, rational critical thinkers are generally the voices of reason in times of mass hysteria or panic where others cannot take effective and good decision. The critical thinkers usually have the comprehensive skills to consider all possible options and solve a problem.

Critical thinkers consider all available options before they act. If time is an important factor, they consider the fastest and the most functional method for achieving the goal; they may even discover a shortcut. Critical thinkers embody the phrase "Work smarter, not harder". They are masters of efficiency.

All in all, a critical thinker has the self-awareness to know the difference between a rational thought based on careful consideration and an emotional response based on personal bias. Emotion is the enemy of reason. By understanding one's own perspective, they can also consider the perspective of others and come to a conclusion based on fact, not feelings.

### **I.5. Fostering Critical Thinking in EFL classes**

Critical thinking skills are an important aspect of 21<sup>st</sup> century skills. They are an essential element in inquiry based learning as the famous quote by Benjamin Franklin (1750) states: "Tell me and I forget, teach me and I may remember, involve me and I learn". Students should be involved by thinking more deeply about what they are learning. They need more opportunities to ask questions and express their opinions. As students develop Critical thinking skills, they will become more aware of the language they are learning. Like any academic skill, critical thinking requires a great deal of practice through some classroom techniques used by teacher. The following techniques are adapted for teachers who would like to use critical thinking in their classrooms (Edmonds et al:24)

- ◆ Start classes with a question: set up anticipation before class begins.

- ◆ Assign questions for them to answer about their reading: "explain why and how..."
- ◆ Give a 5- minute quiz at the start of class (keeps students engaged).
- ◆ Use charts and graphics (visual learners abound).
- ◆ Have them play roles: give a speech as if they were the author of the document.
- ◆ Have them identify premises, assumptions and conclusions in today's newspaper.
- ◆ Have them evaluate reasoning, evidence, and completeness in today's newspaper.
- ◆ Use index cards to call on all students randomly.
- ◆ Make students figure things out in class (combine them into small groups to discuss solutions).
- ◆ Interview each other and restate the other person's views to the class.
- ◆ Talk less; give them time to think about what you've said.
- ◆ Model critical thinking: think aloud on your feet in front of them.
- ◆ Use Socratic questioning: "What precisely do you mean? " "How do you know? " "What is your reason? " "What else has to be true for that to be so? " Etc.
- ◆ Promote collaboration: have small groups solve problems and adopt positions.
- ◆ Use pyramid teaching: discuss in pairs, then small groups, then larger groups. 25
- ◆ Use pre- writing or free writing: start class by having them write about today's topic non-stop for 5 minutes (cannot lift pen from paper or stop writing for 5 minutes).
- ◆ Use peer review or small groups to evaluate each other's in- class work.
- ◆ Use counter- factual questions: "But what if...? " "Why not...?"
- ◆ Require a learning log: have them keep a two-column notebook in which the left-hand column contains topics of readings and lectures and the right- hand contains what they think about the topics before and after coming to class (hand this in periodically for review).
- ◆ Organize debates: ask them to take sides on an issue, choose groups of 2 or 3 to brainstorm, then have them present their positions in front of the class.
- ◆ Have them write dialogues around an issue: forces them to take both sides.
- ◆ Have them explain the purpose of any given assignment in their own words.
- ◆ Have the document of their progress: - at the start of each class, they write what they think about the topic; - at the end of class, they explain how their thinking changed.
- ◆ Break assignments down step by step: many learners require small bits.
- ◆ Encourage discovery rather than memorization: give problem- solving assignments (can be done in groups or peer-reviewed to save you grading time).
- ◆ Promote self- assessment: spell out grading criteria and make them apply it to their own or each other's work.
- ◆ Have them apply the criteria for "Evaluating Critical Thought" to an editorial in today's newspaper, or to their own or a classmate's work.
- ◆ Have them organize and classify a group of short documents by points of view.
- ◆ Have them paraphrase a document's argument in their own words.
- ◆ Have them rank a group of short documents in order by persuasiveness, completeness, depth, breadth, and other criteria of good critical thinking.

In the same line of thought, there has been a general proposal that there is a broad suggestion that critical thinking should be taught directly and explicitly (Ni PutuAyu, 2016 :55). Ennis (1992, cited in Ni PutuAyu, 2016, p.55) proposed three

wide approaches to teach critical thinking which are: the general approach, the infusion approach and the mixed approach.

The first approach is a general approach where the teachers are required to teach critical thinking in general separated from the teaching context by using non-school subject contexts (Sternberg, 1987 as cited in Ni PutuAyu, 2016:56). However, McPeck (1980, cited in Ni PutuAyu, 2016:56) failed to agree that teaching critical thinking should be explicit. Furthermore, critical thinking has no sense when it is taught in isolation from the teaching context (Schneider 2002, cited in Ni PutuAyu, 2016:56). From this perspective, the second approach which is named infusion approach appeared. According to Ennis (1992, cited in Ni PutuAyu, 2016:56), it includes infusion of critical thinking instructions and questions related to the subject matter where students are motivated to think critically about the subject.

The mixed approach is the last approach which involves the principals of both the general and the infusion approach. This approach consisted of a separate course which focuses on teaching the basis of critical thinking where the students are also stimulated and involved by the use of critical thinking instruction. (Ni PutuAyu, 2016:56)

The encouragement of critical thinking in classrooms is of high significance in foreign language teaching. Teachers are regarded as professionals who can facilitate the development of critical thinking skills in their classrooms by using cooperative learning where they can give the opportunity to their students to think and express their minds and stimulate them by asking some critical questions. Language learners can examine and evaluate their own ways of learning more successfully if they think critically.

## **II. Algerian Teachers' Practices in implementing Critical Thinking**

### **II.1. Statement of the Problem**

In Algeria, the adoption of the competency based approach (CBA) as a learner centered method to teaching English as a foreign language (TEFL) signaled a new dimension in the educational system. The principles of the CBA are mainly decided upon for developing independent and autonomous learners with CT skills. However, teachers' practices might be affected by multiple factors including training, experience, classroom realities, curriculum objectives, and nature of materials. Consequently, even if the curriculum ideology claims for the fostering of CT skills, teachers would orient their practices into unexpected scenarios.

### **II.2. Purpose of the Study**

Based on the aforementioned context, the present paper aims at examining the implementation of critical thinking skills, through the use of Socratic Questioning and Bloom's Taxonomy. In other words, it investigates the way Algerian EFL teachers trigger secondary school learners' critical thinking skills through these two methods.

### **II.3. Research Questions**

Regarding the crucial role of enhancing CT skills in EFL learners in Algeria, the study has generated the following research question:

1. How do Algerian EFL secondary school teachers implement critical thinking in their classrooms?
2. How do Algerian EFL secondary school teachers use Socratic Questioning and Bloom's Taxonomy to implement Critical thinking in their classrooms?

## **II.4. Hypothesis**

This study departs from hypothesizing that if teachers use Socratic Questioning and Bloom's Taxonomy, CT would be implemented and learners' CT skills would be fostered.

## **II.5. Research Tool**

In order to investigate the implementation of CT in the EFL classrooms, a questionnaire was administered to teachers. The questionnaire inquired into teachers' current practices; whether they serve secondary school students' critical thinking enhancement, how and to what extent. That is to say, if teachers are using CT strategies such as Bloom's Taxonomy and Socratic Questioning while teaching they would positively induce their students critical thinking. The questionnaire is made up of twenty four questions (24Q) that were divided into seven sections: background information about the teachers (Q1 to Q2), teachers' awareness and concern with critical thinking (Q3 to Q7), critical thinking within the lesson presentation (Q8 to Q14), critical thinking in the assessment activities (Q15to Q18), teachers' attitudes towards their pedagogy (Q19to Q20), critical thinking in the Algerian textbook (Q21 to Q23), and further comments/ recommendations (Q24.). The questions varied between closed-ended accompanied with options (16Q) and open-ended asking for justifications or more clarification from the teachers' part (8Q).

## **II.6. Sample**

Considering a wide scope of validity, thirty questionnaire copies were sent to thirty teachers belonging to thirteen (13) secondary schools distributed over ten (10) districts in Algeria, namely Adrar 01, El Bouira 01, Bejaia 07, Batna 01, Constantine 05, Jijel 01, Skikda 01, Oum-El Bouaghi 01, Tebessa 01 and Tiaret 01. The respondents were contacted during the academic year 2019, mainly via social media, "Facebook", where they were sent a word version of the questionnaire to be filled in and sent back again. The number of returned questionnaires is twenty (20).

The analysis of the questionnaire has revealed many significant results concerning the teachers' implementation of CT with third year secondary school class

## **III. Results and Discussion**

### **III.1. Results**

The teachers' questionnaire has revealed important results on teachers' attitudes and practices towards CT. Namely, it investigates the position of Bloom's Taxonomy, Socratic Questioning, and some activities that promote critical thinking the teachers' practices including the textbook. These results will help in understanding the current teaching, and how can it be improved in order to foster the students' critical thinking skills.

The table below provides a quantitative summary of the results obtained from the teachers' questionnaire. Questions 08, 14, 22, 23, 24 are treated in the discussion section because the data they provide cannot be included within the table below.



**Teachers' Practices of Critical Thinking in the Algerian Secondary School EFL Classroom**

<i>Q</i>	<i>options</i>	<i>N</i>	<i>%</i>
1	a	6	30
	b	5	25
	c	6	30
	d	3	15
2	a	6	30
	b	5	25
	c	3	15
	d	3	15
	e	3	15
3	a	19	95
	b	1	5
4	a	0	0
	b	0	0
	c	3	15
	d	11	55
	e	6	30
5	a	20	100
	b	0	0
6		20	100
7		20	100
8			
9	a	17	85
	b	3	15

<i>Q</i>	<i>options</i>	<i>N</i>	<i>%</i>
10 /17	a	5	29.41
	b	9	52.94
	c	3	17.64
11	a	0	0
	b	0	0
	c	4	20
	d	11	55
	e	5	25
12	a	5	25
	b	4	20
	c	11	55
13	a	3	11
	b	8	29
	c	1	4
	d	7	25
	e	1	4
	f	8	29
14			
15	a	15	75
	b	5	25
16	a	16	80
	b	4	20

<i>Q</i>	<i>options</i>	<i>N</i>	<i>%</i>
17	a	1	5
	b	13	65
	c	5	20
	d	0	0
	e	1	5
	f	0	0
18 /16	a	6	37.5
	b	8	50
	c	5	31.25
		5	31.25
		2	12.5
	3	18.75	
	d	13	81.25
	e	16	100
f	11	68.75	
19	a	19	95
	b	1	5
20	a	0	0
	b	18	90
	c	2	10
21	a	17	85
	b	3	15
22 /16			
23 /13			
24			

**Table 1 : Summary of Results**

**III.2. Discussion**

**III.2.1. General Background Information about the Teachers**

This section attempted to gather background information about the respondents, namely their qualification(Q1) and teaching experience (Q2). The results revealed that the sample is made up of three main categories: ENS graduates (30%), bachelor degree holders (30%) and Master's degree holders (25%). In addition, the sample includes teachers coming from different Algerian districts,

belonging to different age categories and graduated from different universities gave the study a certain degree of validity and accuracy. This would make the results worthier and more reliable whenever speaking on critical thinking skills in the third year Algerian secondary schools. Furthermore, the respondents represent a wide experience profile. The highest rate of respondents is that of novice teachers (30% have an experience of less than five years). The lowest rate however is that of teachers holding an experience above twenty years (15%) and between ten and fifteen years of experience (15%).

### **III.2.2. Teachers' Awareness and Concern with Critical Thinking**

This section aimed at verifying the teachers' familiarity with CT (Q3), its importance (Q4), implementation in the classroom (Q5), strategies used to promote it (Q6), and reasons and their attitudes towards it (Q07). The Teachers showed a high level of awareness of CT skills (95%) and expressed opinions about the importance of developing students' CT skills -important (15%/very important (55%)/ extremely important (30%)- This would greatly help in setting grounds for the implementation of new practices and methods of teaching that foster the students' critical thinking. Further, the teachers' positive attitudes towards critical thinking are transformed into classroom practices (100%). This is reflected by the various ways and strategies mentioned to promote students' critical thinking: writing compositions (12respondents), group work (10respondents), problem solving activities (06 respondents), brainstorming (05respondents), peer assessment (05respondents), effective feedback (04respondents), summarizing (04 respondents) expressing opinions (03respondents), creating contradictions (03respondents), the use of motivational strategies such as games and technology (03respondents), discussions and prompt questioning (02respondents), MCQS(01respondent). Such data reveal that teachers are knowledgeable about the necessity of implementing critical thinking using the above mentioned activities.

### **III.3.3. Critical Thinking within the lesson Presentation**

This section investigated the place of Bloom's Taxonomy and Socratic Questioning mentioned in this study as frameworks to diagnose the implementation of critical thinking in the EFL classroom. Data were collected about teachers' current practices in terms of CT within lesson presentation: order of the thinking levels according to their appearance within the lesson's objectives (Q8), engagement of students in classroom discussions (Q9), teacher's prior planning of questions (Q10), frequency of requirement of students to justify their answers (Q11) , the type of justification provided (Q12), the types of activities that teachers never use in the classroom (Q13), and the justifications for not using the suggested activities (Q14). The analysis of the responses revealed that regarding that tasks promoting critical thinking skills must target the higher thinking levels according to Bloom's Taxonomy (analysis, synthesis and evaluation), it was important to investigate the lessons' objectives. That is to say, seeing which position is given to both the lower and higher thinking levels in the lessons' objectives set by teachers. This would help to a greater extent in depicting critical thinking skills' position within the teaching process. Concerning the lower order thinking levels, both knowledge and comprehension were classified in the first and second position in the lessons objectives. First, twelve (12) respondents gave knowledge the first position (60%) while the remaining eight gave it the second one (40%).Second, while six (6) informants placed comprehension in the first position (30%) twelve of them placed it in the second one (60%) and only two (10%) placed it in the third position. Neither thinking level got the fourth or fifth place. In other words, the lessons' objectives targeted basically the lower thinking levels: knowledge and comprehension, which is not a stimulating start for CT skills' development. Application was mainly classified in the third and fourth position by eleven respondents (55%) for the third position and six for the fourth one (30%).It took twice the fifth position (10%) while only one put it in the final one, the sixth, (5%). It is quite logical that since objectives

were based on knowledge and comprehension, their third basis would be application. It came as a reinforcement and assessment to comprehension and knowledge regarding that application refers to the ability to use learned materials in new situations, involving applying things such as rules, methods, concepts, principles, and theories (Truschel, 2007). Furthermore, it goes hand in hand with almost all lessons especially those including rules such as grammar, writing and phonetics.

Analysis, however, ranged from the third to the sixth position. First, it was classified in the third place by five teachers (25%), the fourth place by eight teachers (40%) and the fifth one by seven teachers (35%). No teacher placed it in the sixth position, and it did not take the two first positions as well. This indicates a medium use and exploitation of the students' analytical abilities. Finally, synthesis and evaluation were placed in the sixth position by almost the majority of the respondents: eight teachers (40%) for synthesis and eleven for evaluation (55%). (30%) classified synthesis in the fourth while (35%) gave it to evaluation. Concerning the third position, it was attributed to synthesis by (20%) and to evaluation by (10%). Only two respondents classified synthesis in the first place (10%). Contrarily, evaluation didn't take the first position at all. Having the most important and effective thinking levels placed in the two last positions, mainly in the lessons' objectives, is alarming. Consequently, critical thinking skills would not be triggered and the students' thinking would remain attached to the very basic levels.

Due to the importance of discussions as a tool for both teaching and learning and thinking development, informants were asked whether they engaged their students in classroom activities. Seventeen teachers confirmed to do so (85%), which is positively regarded because "when students really ponder a question, discuss it in groups, or explain their answers to others, they are more likely to use skills at the more advanced levels of Bloom's Taxonomy (Yuretich, 2004:44, cited in Rezaei, Derakhshan & Bagherkazemi, 2011: 773). On the contrary, three of them denied engaging their students in classroom discussions (15%). This may be due to teachers' need to maintain their control over the lesson presentation and to save time for discussions in practice. Furthermore, approximately half of the teachers (52, 94%) who engaged their students in discussions while explaining did not plan for their questions. Probably, they improvised due to two main reasons that are the flexibility of the teaching process and their experience. Even while having the same lesson, some situations impose new needs to be fulfilled on the spot. The change might be a result of some external conditions or related to the students, themselves, and their different cognitive abilities. Besides, experienced teachers are acquainted with the syllabus and its content so they believe they master the art of questioning while they might not be.

The second category whose questions were planned beforehand represents (29,41 %). According to the notes they have added, they believed in the effectiveness of a good lesson plan that tackled deeply each single step of the lesson presentation. Moreover, generally they were still novice teachers lacking the skill to improvise successfully. On the other hand, three teachers (17, 64%) added that they are in need of both, the planned and spontaneous questions, depending on the situation and the discussion's topics. In short, discussions while explaining the lessons are serving very little the students' critical thinking skills since they are barely paid careful attention. In addition, all the respondents asked their students to justify their answers. No one opted for nor "never", neither "rarely" (0%). Unlike the four teachers who did it just sometimes (20%), the majority, composed of eleven informants, did so often (55%), while the rest quarter asked for justifications very often (25%). This indicates the teachers' concern with not only the students' understanding and grasping of the provided content, but also building their own point of view and enlarging their scope of vision.

The type of the required justification affects its role in activating the students' CT abilities. According to this study, four teachers looked for justifications that are related only to what had been taught (20%), which has no benefit on the students' thinking. It limits them to memorization and turns their thinking to be rigid and flat. However, quarter of the respondents asked for personal justifications (25%) while

the majority consisted of eleven respondents asked for both personal and content related justifications (55%). “Through the questioning process, students are demanded to respond actively to questions in all levels of cognitive domains in the classroom practice” (Apsari ,2016:56). Hence teachers who asked for justifications, being only personal or personal and content- related, have urged the students to check their general knowledge and make links with their personal experiences using analysis and synthesis. Further, this would instill in them the ability to question their own life experiences and learn from them. Herein, students have achieved evaluation, the highest thinking level. Moreover, they made use of the theory learned in the classroom by visualizing real situations where it can be applied. Having the majority of teachers concerned with the right type of justifications entails the promotion of autonomous learners since the students were encouraged to go out of the box through their vivid and active thinking, making of knowledge the tool not the thinking itself.

Another aspect to consider with the lesson presentations is the used activities, namely, activities promoting communicative competence. The results showed an almost total neglect of four types including story completion (29%), simulations (29%), storytelling (25%), and role plays (11%). Teachers used mainly group work and interviews (as part of short dialogues) This would prevent learners from valuable opportunities to exploit their thinking using English language. Teachers justified this practice with a set of reasons: lack of time (100%), their absence in the textbook/ syllabus (100%), overcrowded classrooms and lack of equipment (04%), and the students’ low level of proficiency that stood as the main obstacle in front of these activities’ success (20%).

#### **III.2.4. Critical Thinking in the Assessment activities**

Since assessment is a fundamental step in any teaching process and is by nature question oriented, this study investigated the possibility of implementing CT through assessment. The informants were asked about the targeted thinking levels within the exam questions (Q15), the place of multiple choice questions in the exams (Q16), the manifested cognitive levels in secondary school students’ exam answers (Q17) and the way project works are evaluated. The focus remains mainly on the two selected frameworks in this research (Bloom’s taxonomy and Socratic questioning)

The results showed that exam questions targeted mainly the lower thinking levels (knowledge, comprehension and application) (75%). Only five teachers said they targeted analysis, synthesis and evaluation in their designed exams. Accordingly, devoting efforts to enhance the students’ CT during the lesson presentation and the different classroom activities would not suffice without measuring their thinking progress through exam questions. Among the strategies that have been approved for critical thinking assessment are multiple-choice questions. The majority of the respondents (80%), in this study, mentioned they adopted MCQs as an assessment type. In an opposing manner, (20%) of the teachers did not utilize them. Therefore, teachers should be familiar with the importance of not only MCQs but also all other critical thinking assessment activities. They are better to get benefit from them in inducing the students’ thinking and controlling their thinking development.

The students showed mastery in both levels comprehension (65%) and application (20%). Contrarily, they were not successful in any higher thinking level. This implies two possibilities. First, an almost complete absence of a real care for developing the students’ CT skills despite the fact that previous results showed teachers’ interest and awareness of both Bloom’s Taxonomy and the strategies that promote them. Second, teachers do their best with regard to the constraints they face, but students are not aware of critical thinking: its essence and the process they are undergoing to develop them. Self-awareness has a great impact on learning. When students are aware of what they are learning they become more efficient and attentive to what they are still in need to learn, make use of their life experiences, and they start achieving higher levels (Marilyn-Mitchell, 2015).

Besides, with regard to the evaluation of the project work, it is noticed that CT is highly activated. The criteria used by teachers for the project works assessment were very useful in enhancing the students CT. They cared for both the process and the product. They considered creativity, relevance to the theme, selection, organization, linguistic competence, and collaboration between the group members. This promotes the HOTS, prompts questioning, communicative competence, social skills and autonomy which are all required for a critical thinker.

### **III.2.5. Teachers' Attitudes Towards their Pedagogy**

Teachers' attitudes are of high significance when planning for change. In general, teachers are to a great extent reluctant to change and might react strongly against it. Yet, the results in this study have revealed that the respondents are in majority (95%) open and ready to learn about the pedagogy of developing CT. These results are promising since the teachers' attitudes are the threshold towards change Omolara and Adebukola (2015:131) claimed that attitudes could influence the way teachers plan and prepare for their lessons. Hence, teachers who are less interested in a given topic would be unable to create a supportive learning environment, whereas those who show interest would undoubtedly succeed in. The informants showed openness and positive attitudes towards the pedagogy of CT, which denotes their readiness to be active agents in the quest for change. They also showed readiness for the implementation of new teaching strategies that would promote CT (90%).

### **III.2.6. Critical Thinking in the Algerian Third Year Secondary School Textbook**

The questionnaire investigated CT in the secondary school Algerian textbooks. (85%) of the teachers said that they adapted the materials provided in the textbooks. They linked this to the need to bring motivation and creativity to the classroom through the used materials, since the textbooks are rather outdated and don't captivate the students' interests. However, the rest (15%) who preferred the textbooks' materials adoption have linked it to financial reasons since it is for the teachers to pay for the new suggested materials, for all their students. Finally, Teachers saw critical thinking in the textbooks as partially present and even if it is present in some units and activities such as problem solving tasks the time allocated for such activities is far from being enough which minimizes their benefit in enhancing the students' critical thinking.

### **III.2.7. Teachers' Further Comments and Recommendation**

Teachers' recommendations are a reliable source of information about the gaps and needs in the current educational system. The informants suggested the amelioration of the teaching /learning process through motivating activities and materials to overcome the students' demotivation 75%. Some teachers (58%) suggested that the textbooks should be ameliorated so as to include CT activities. In addition, (41.66%) recommended giving communicative competence its required importance in the Algerian program of English which is not the case nowadays (41.66%).

### **Conclusion:**

This study tackled the importance of CT in terms of teachers' practices and attitudes towards its implementation in the Algerian EFL secondary school classroom. It aimed at finding answers to the research questions and verifying the hypothesis set beforehand. The investigation was undertaken through the use of a questionnaire addressed to a varied scope of Algerian secondary school teachers in terms of geographic representation and experience. Significant qualitative and quantitative results on teachers' practices and attitudes towards CT were collected and proved that teachers are aware of the importance of CT in the EFL secondary school classroom, as a ground to higher education. Yet, the lessons' objectives target mainly the lower order thinking levels and give partial consideration to

the higher order thinking levels of Bloom's Taxonomy. According to the results obtained from this study, teachers devote efforts unintentionally to foster their students' critical thinking. These efforts can be exemplified by engaging their students in debates and asking them for the right types of justifications, their use of MCQs for assessment, their way for the students' project works' assessment, and their adaptation of the textbook materials for the sake of ameliorating the learning process. Unfortunately, these efforts are not guided by a clear and official framework that would organize them and make them reach the highest level of efficiency. In addition, they are faced with obstacles such as time constraints, managerial aspects such as lack of materials and psychological aspects such as learners' demotivation. That is to say, critical thinking skills are not within the target outcomes set by course designers, otherwise the adequate grounds that promote them would have been set. Having the teachers aware of the importance of CT and readiness for change and for CT implementation calls course designers and officials to reconsider the current teaching process including both content and methods. In addition, teachers must be given a larger scope of freedom to practice their efforts. Given these points, the research hypothesis "if teachers use Socratic Questioning and Bloom's Taxonomy, CT would be implemented and learners' CT skills would be fostered" is verified. Algerian EFL teachers devote efforts to uplift their students' CT; however, teachers should be equipped with the know how to act skills regarding CT and their initiatives to implement it should be reinforced through setting a clear framework within the curriculum.

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