International Journal of Language Academy

TEACHER'S USE of TECHNOLOGY to ENHANCE EFL LEARNERS' CRITICAL THINKING SKILLS Case Study: Biskra Secondary School Third Year Learners, Algeria

Bougherara Rim[1]

Abstract

Through global development, critical thinking becomes one key component in our schools. Teaching critical thinking skills assists learners to become better thinkers in both classroom context and life situation. For this reason, teachers are working hard to find workable strategies to enhance their learners' critical thinking skills. Therefore, many of them try to use technology in order to rich their goal. This paper is important in the sense that it attempts to describe the role of technology in enhancing EFL learners 'critical thinking skills because learners are supposed to be critical thinkers by using both high and low order thinking skills. Its main aim is to highlight the strong relationship between the integration of technology in the classroom and the learners' development of their critical thinking skills. It aims as well at proposing some ways of using technology by teachers to promote their learners' critical thinking skills. So, the method of this study is a descriptive one in which the researcher used a questionnaire as a data gathering tool for both secondary school teachers of English and secondary school learners in order to accomplish workable results. The results are: EFL teachers are using technology in their classes in order to promote their learners' CTS. The minority of our sample of learners are aware of the importance of technology in enhancing their CTS.

Key Words: Critical thinking Skills, EFL Learners, Secondary School Teachers, Technology.

[1] Abou Lkacem Saadallah, Algiers, Algeria. rimbougherara27@gmail.com

Introduction

The modern requirements of the educational process focus on 21st century- skills, including the critical thinking ones. The process of learning in current educational work gives importance to enhance learners' critical thinking skills because these skills are not necessary only at schools, yet it lasts forever. Consequently, teachers need to encourage the development of their learners' critical thinking skills. In its meaning, they have to model these skills to their learners and to teach them explicitly to think critically. For this reason, they are supposed to select the most appropriate method that assists them to promote their learners' critical thinking skills. With the current innovations, technology has been matched with various aspects of education. Therefore, the current paper attempts to give prominence to the role of technology for enhancing English as foreign language learners' critical thinking skills; particularly, higher order thinking ones. In addition, it has two main aims: 1) to highlight the role of technology in enhancing those learners' critical thinking skills. 2) To propose some strategies for using technology by teachers for promoting these skills in relation to the learners.

The Literature Review

1. Definition of Critical Thinking

Critical thinking (CT) is a term that is widely integrated into several areas of study. Sternberg (1986, p. 3) defined it as: "the mental processes, strategies, and representations people use to solve problems, make decisions, and learn new concepts. The particular elements of critical thinking that people use vary widely both in scope and in quality across persons, tasks, and situations" (cited in Sherrie, 2015, p. 326). Thus, developing this ability facilitates many other processes, the fact that makes it important in everyday life. In his turn, Astleitner (2002, p. 53) proposed that CT is "higher- order thinking skills which mainly consists of evaluating arguments. It is a purposeful, self-regulatory judgment which results in interpretation, analysis, evaluation, and inference" (cited in Glicken, 2005, p. 117). It can be understood that this concept covers many elements such as interpretation, analysis, evaluation, and all of them need to be enhanced in order to achieve the ability to think critically. "The most formal definitions characterize critical thinking as the intentional application of rational, higher order thinking skill, such as analysis, synthesis, problem recognition, problem solving, inference and evaluation" (ANGLO, 1995, p. 6). These cognitive abilities are high order skills that are added to the low order skills of thinking.

C T is an aspect of the thinking activity that covers sub-activities. First, analyzing is one type of high order thinking skills that refers to the process of examining ideas. Bouanani (2015, p. 51) mentioned "analysis includes examining and exploring ideas, identifying arguments, analyzing arguments". In this step, individuals can compare, organize, and deconstruct the provided knowledge. Next, it is important to check, judge, and test the ideas and arguments in the step of evaluation. According to Bouanani (ibid), "evaluation involves assessing claims and arguments". For example, when reading books, the readers can evaluate two books by making a comparison between them, but, here, they should have strong background knowledge. The highest and last step is creating in which individuals produce, construct, and plan new meaning. Chakrabart (2002, p. 6) pointed out that it is: "collecting, searching for, or inventing a set of ideas". In summary, these steps go together in order to develop the sense of critical thinking.

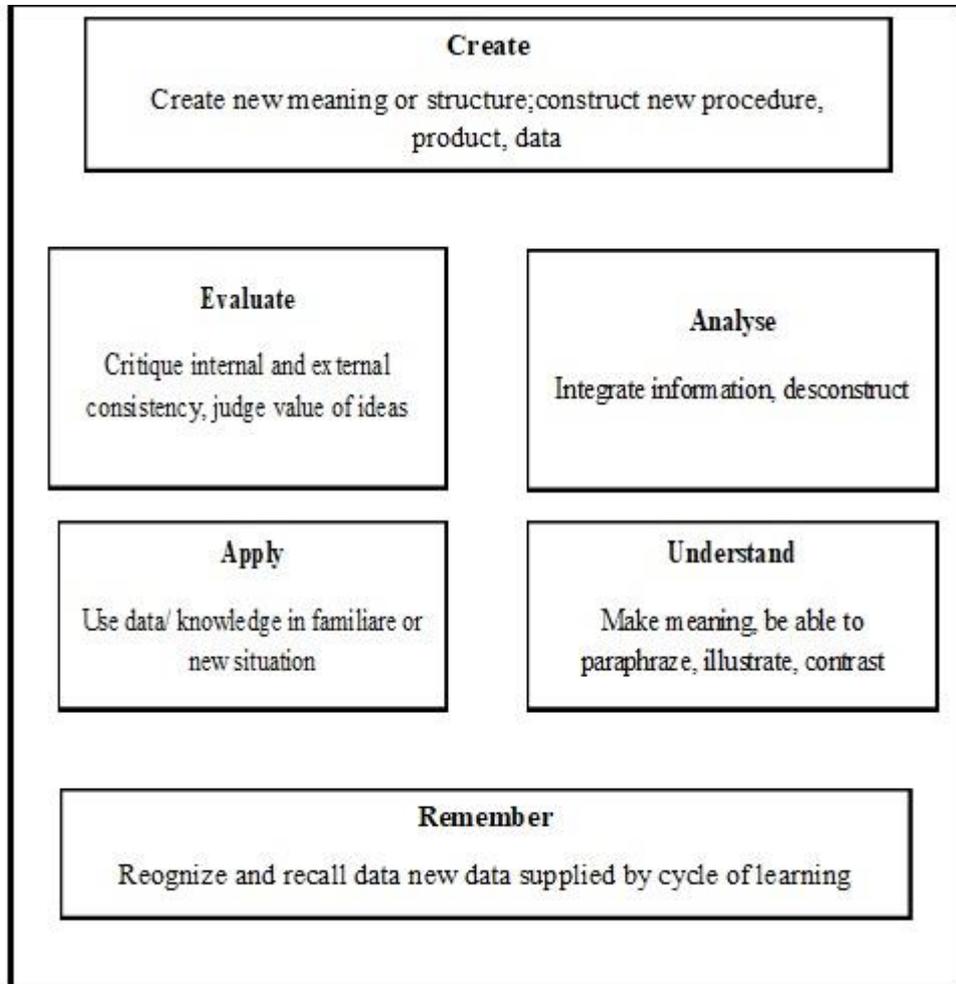Digital and electronic resources play a vital role in developing critical king.

Figure 1: Development Path Ways of Revised Bloom Cognitive Taxonomy of Kolb Reflectors (RQ) and Theories (AC) (Richlin, 2006, p.50)

1.2. Critical Thinking and Technology

There is a clear influence of technology on developing learners' critical thinking skills (CTS). Sherrie (2015, p. 115) argued that "teaching critical thinking to a generation that places a premium on using technology and the process of finding themselves can have a significant impact". Currently, the majority of people are extremely interested in technology, and for this reason, researchers have been trying to demonstrate its impact on developing critical thinking. It has been mentioned that "a review of studies carried out for the Commission confirms broad positive benefits of ICT for learning modes such

as cognitive processing, independent learning, critical thinking and teamwork and that ICT enhances a student-centred learning approach" (cited in Amziane & Amar Guendouzi 2015, p. 72). Developing the ability to think critically requires an explicit integration of electronic recourses.

<div align="center">

The Methodology

</div>

2.1. The Significance of the Study

This study is important in the sense that it attempts to highlight the role of technology in enhancing EFL learners' CTS because learners are supposed to be critical thinkers by using both high and low order thinking skills. In order to fulfil the gap between theory and practice, different teachers have selected different methods that can enhance their learners' CTS including teamwork, classroom discussion, argumentative piece of writing and others. Nonetheless, through the current development in the teaching process, teachers redirect their orientation towards the integration of technology. For this reason, the current research attempts to highlight the role of technology in enhancing EFL learners' CTS. This descriptive work can be fruitful for both teachers and learners. That is to say, it raises the teachers' awareness about the importance of technology in enhancing English as Foreign Language (EFL) learners' CTS and provides them with some suggested strategies for using it appropriately in relation to CTS. In the learners' side, it directs their attention towards the importance of CTS in their learning process and to the way how they need to be enhanced.

2.2. The Aim of the Study

This study aims at highlighting the role of technology in enhancing EFL learners CTS. It is followed by certain objectives:

1) To highlight the role of technology in enhancing EFL learners' CTS.

2) To propose some strategies for using technology by teachers to promote their learners' CTS.

2.3. The Research Questions

1)   Do EFL teachers use technology in their classes to improve EFL learners' CTS?

2)   Are EFL learners who study at secondary schools aware of the importance of technology for promoting their CTS?

3)   How could technology enhance EFL learners' CTS?

There is a rationale for each research question in this paper. In the first research question, the researcher wants to clarify the importance of integrating technology in the classroom and to determine whether teachers are using it in their classes for the purpose of improving their EFL learners' CTS. In addition, this study is expected to investigate the degree to which EFL learners are aware of the importance of using technology for promoting their CTS; particularly, higher order thinking skills. Through the second research question, the researcher can get a clear idea about the EFL learners' attitudes concerning technology and its impact on promoting these skills. Also, it highlights the aspects of technology which are highly integrated by their teachers in order to enhance their higher order thinking skills. Finally, this work stresses on knowing the way how technology can enhance EFL learners CTS. Through the last research question, the researcher can provide some potential strategies that can assist teachers while they are using technology in their classes; precisely, for developing their EFL learners' CTS.

2.4. Methodology of Research

2.4.1. The Research Method

The method that will be used in this research is a descriptive one. It is adopted as an appropriate way to enrich the required objectives. It may be a way to highlight the role of using technology in enhancing EFL learners' CTS.

2.4.2. Data Gathering Tools

The present design opts for one data gathering tool which is a questionnaire. The questionnaire was administered to both teachers of English and EFL secondary school learners. On the one hand, the teachers' questionnaire was used to investigate the first and the third research questions in which the teachers demonstrated different points: the importance of critical thinking skills, the use of technology to enhance these skills, some ways of integrating technology for promoting CTS. On the other hand, the learners' questionnaire was used to investigate the second research question. The proposed sample of learners gave different answers about their attitudes towards the importance of using technology for enhancing CTS, their ability to use higher order thinking skills, and their opinion about the most difficult critical thinking skills to be enhanced.

2.4.3. The Sample

The sample of this study will be Secondary School teachers of English and third year second year EFL learners. On the one hand, five teachers of English who teach third-year classes are selected from two Secondary Schools at Biskra. On the other hand, sixty-third-year secondary school learners are selected from the same schools. These schools are selected randomly in order to describe the role of using technology in promoting those learners' CTS. The reason behind selecting those teachers who teach third- Year classes is that they have experience in teaching and they are expected to be aware the appropriate meaning of CTS. In addition, the Algerian textbook of English for third-year classes cover some tasks that may have an effect in enhancing CTS in relation to the learners.

The Results

Research Question 1: Do EFL teachers use technology in their classes to improve EFL learners' CTS?

The full number of our informants (100%) strongly agrees that CTSs are important in EFL classes. the same number of them strongly agrees as well that these skills need to be integrated into the EFL classes. Nevertheless, the majority of our sample of teachers (60%) disagrees with the idea that third-year secondary school learners are good critical thinkers. In addition, a great number of them also disagrees that their learners are aware of the importance of CTS in the classroom.
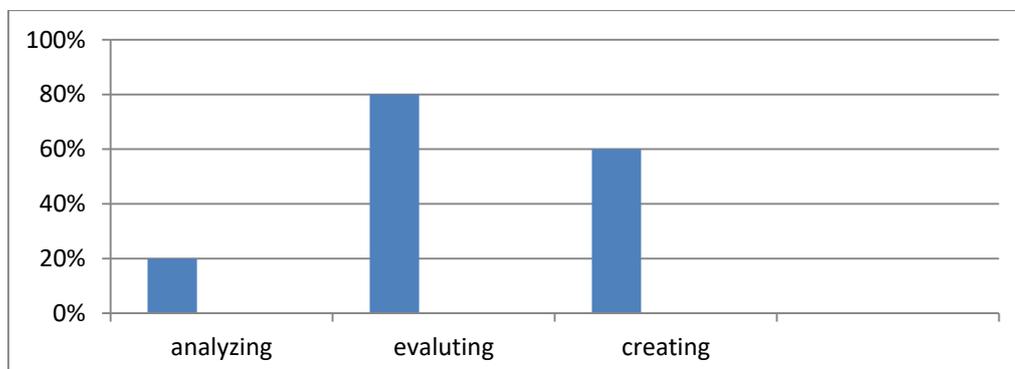
Graph 1: Developing Learner's Higher Order Thinking Skills

As it is shown in the graph above, the high number of this sample (80%) are trying to enhance their learners' ability of evaluation, which is one of the HOTS. (60%) of them promote the highest level of blooms' taxonomy which is creation. Yet, just (20%) of our subject put analysis into consideration to be promoted.
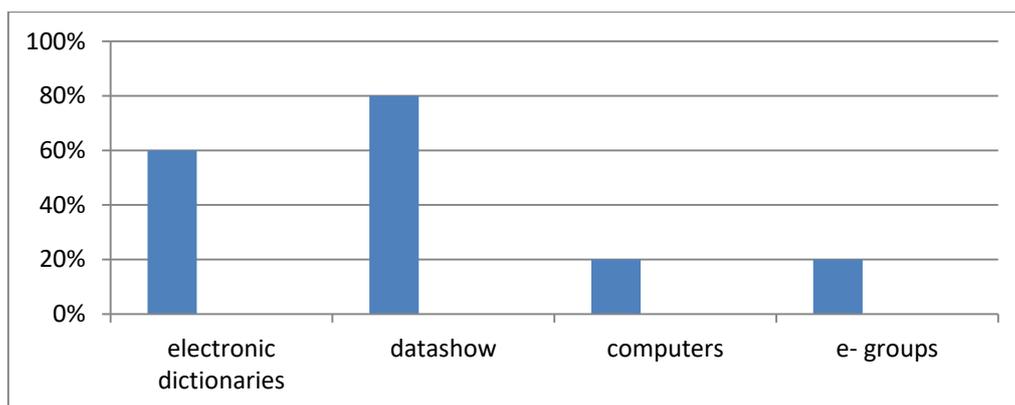
Graph 2: The Teachers' Use of Technology in the Classroom

EFL teachers who teach in secondary schools (100%) are using technology in their classes. According to the graph above, where teachers chose more than one answer, many informants (80%) answer that they mostly use data show while they teach. However, both e- groups and computers are not fostered by teachers (20%) to be used by their learners.

The majority of our sample (80%) justifies the lack of using some aspects of technology in the classroom by choosing the answer that the tools are not highly available. Besides, the full number (100%) chose the answer that time constraints are barriers for integrating some aspects of technology in the classroom.

Considerably, all the informants (100%) strongly agree that integrating technology in the classroom promote the learners' CTS. The majority of them (60%) mention that they

integrate technology in the classroom to develop their learners 'both low and high order thinking skills. But, a half number of this sample (50%) declares that they integrate it to develop just the HOTS. That is to say, some secondary school teachers in our sample (50%) do not pay much attention to LOTS. In spite of the fact that technology is important for enhancing CTS in relation to EFL learners, the whole number of our informants (100%) state that the lack of using technology in the classroom does affect negatively the development of learners' CTS. In its meaning, they infer that there are other methods which can promote EFL secondary school learners CTS regardless of technology.

Research Question 2: Are EFL learners who study at secondary schools aware of the importance of technology for promoting their CTS?

The minority of our sample of learners (10%) strongly agree that they are aware of the importance of CTS. The same number of them mentions that CTSs are not important; therefore, those learners are not aware enough about the crucial role of these skills in the classroom. However, half of our informants (50%) do agree that these skills are important. All in all, despite the fact that CTSs are important in today's classrooms, still, there are some secondary school learners who are not aware of that.
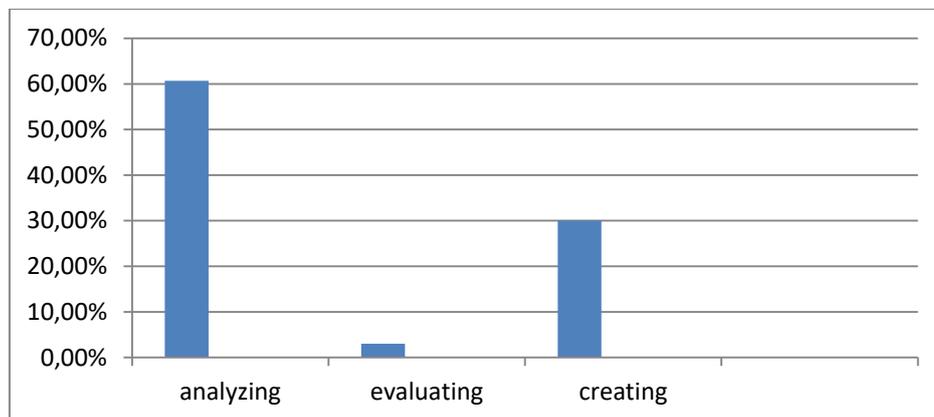

Graph 3: the Most Difficult Higher Order Thinking Skills for Learners

Concerning the difficulty of the levels of CTS, a great number of our informants (60%) declare that analysis is the most difficult one. Yet, few number of them (3%) states that evaluating is the most difficult level of HOTS in relation to CTS. That is to say, the majority of this subject is able to evaluate, but they face difficulties while analyzing. In order to overcome these difficulties, their teachers must intervene and start thinking about developing their learners' CTS. For this reason, the majority of our sample of learners (70%) agree that teachers of English must enhance their CTS; particularly, HOTS.
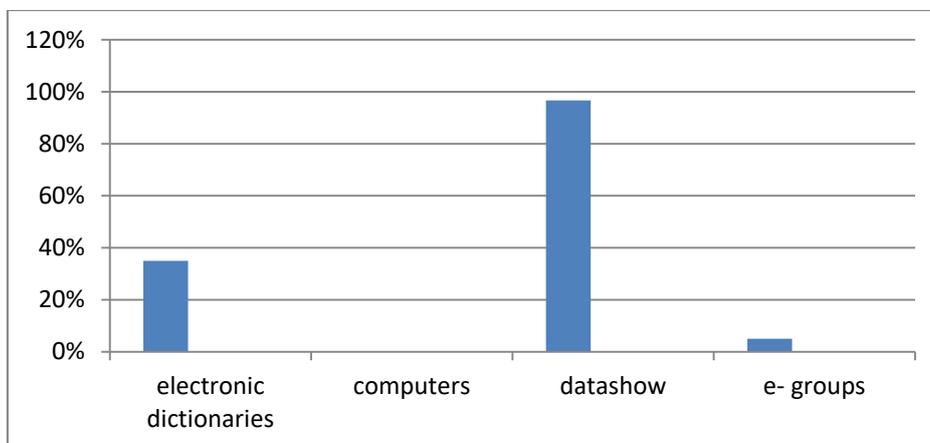
Graph 4: The Learners' Response about their Teachers' Integration of Technology in the Class

The high number of this sample (55%) answer that their teachers use technology during the lesson. As it is shown in the graph below, the majority of them (96.66%) add that their teachers of English integrate the use of data show to present their lessons. In addition, 35% of the sample mentions that their teachers support the use of electronic dictionaries. Nonetheless, it is highlighted (5%) that e- groups are not highly fostered by teachers to be used.
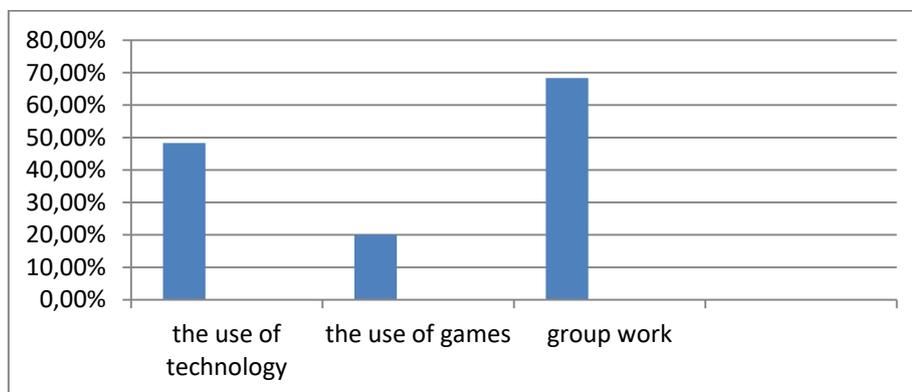
Graph 5: the Best Tool for Developing Learners' Critical Thinking Skills

Despite the teachers' use of some aspects of technology in the classroom, just (48.33%) of our informants consider technology as the best tool for promoting EFL learners' CTS. The majority of this sample (68.33%) selects group work, instead of technology, to be the best method for enhancing these skills; particularly, HOTS.

Research Question 3: How could technology enhance EFL learners' CTS?

EFL secondary school teachers of our sample give different answers:

1)   Teacher 1 said: "showing videos to learners and asking them various questions which help those learners to analyze the content of the video. An electronic group is also good strategy to share knowledge between learners, understand it and analyze whenever it is necessary".

2)   Teacher 2 said: "making e- groups in which they evaluate their everyday lessons, understanding and progression".

3)   Teacher 3 said: "using electronic dictionaries whenever they face difficult English terms that may hinder their understanding".

4)   Teacher 4 said: "asking learners to visit electronic library which can foster their ability in creation; this way assists them to rich the highest level in blooms taxonomy. Videos are important during the lesson where learners will have the chance to evaluate what they saw. These videos can also be good to attract the learners' attentions towards new ideas. But, generally, we face the problem of data shows which are not always available".

Interpretation of Results

1)   According to graph (1) and graph (3), EFL secondary school learners face difficulties in analyzing, and at the same time, their teachers do not pay attention to enhance this ability. In the other side, they can evaluate, and in parallel, their teachers pay much more attention to develop their learners' evaluation. When we link these results, it can be said that EFL third year secondary school learners still rely on their teachers and they do not work independently to enhance their abilities of critical thinking.

2)   According to graph (2) and graph (4), the same question about the teachers' use of technology in the classroom was asked to both teachers and learners. The results in both graphs are nearly the same. On the one hand, data show is chosen by a great number of teachers and learners as the most used aspect of technology in the classroom. On the other hand, it is shown that there are different answers in relation the use of computers; none of the learners in our sample chose it, yet few number of teachers answered that they use it. This is not a contradiction between teachers and learners; instead, each of them understood it differently. Teachers are using it when they intend to link it with data show or when they want to present listening script. Thus one computer used by one person. However, the learners grasp the question in the sense that each learner has his/ her own computer in the classroom. All in all, computers are not highly integrated into the classroom by EFL teachers because of financial problems.

3)   Both EFL secondary school teachers and learners are aware of the importance of using technology in the classroom to enhance EFL learners' CTS. The teachers prefer to use technology to enhance just learners' HOTS; particularly, evaluating and creating because they believe that third-year secondary school learners are already able to use their LOTS. In addition, teachers justify their focus on HOTS rather than LOTS also by the lack of time in the session. In their turn, EFL learners demand from their teachers to use technology to enhance both of the levels (HOTS and LOTS). Possibly, this is because they want from their teachers to integrate technology, as a modern method in teaching, in developing each aspect of CTS.

4)   Technology is very important in the teaching-learning process, but the lack of using it by teachers does not affect negatively the learners' CTS development. This answer infers that teachers in our sample are not highly relying on this tool. In fact, there are other ways which can be used by teachers to promote their learners CTS, but the technology still the modern one. Noticeably, we can say that teachers prefer to rely on other common methods like group work because the majority of their learners showed their preference towards group work rather than technology. In other words, learners' preference towards group work is due to the fact that their teachers make them much more familiar with this method than on technology. In brief, integrating technology in the classroom is still difficult in some schools in particular areas and this difficulty leads teachers to refer to other workable ways for enhancing their learners CTS.

5)   According to the teachers' extra suggestions, each level of thinking can be developed through some aspects of technology. First of all, understanding, the lowest level of CT, can be enhanced by two ways including: e- groups and e- dictionaries. Zheng and Wang (2016, p. 146) state: "with the fast-speed search functionality of electronic dictionaries, they would immediately look up the meanings of all unknown words and phrases in a sentence". Moreover, for enhancing learners' ability in analyzing, teachers may use videos and share knowledge through e- groups. Furthermore, both videos and e-groups are used as well to enhance evaluation. Finally, the highest level of CT which is creating can be promoted by using videos in the classroom or by asking learners to visit e- libraries.

Conclusion

The development of learners' CTS, including HOT, can be accomplished through a variety of strategies and methods including technology. Nonetheless, the success of using technology for enhancing learners' CTS strongly depends teachers' aid and support. In fact, EFL secondary school learners are familiar with technology in their everyday life, yet they still unaware about its crucial role in promoting CTS; therefore, they refer to group work as the best way to enhance their CT abilities. Despite of the difficulty of mastering each level of CT, EFL learners did not refuse to receive trainning and activities for promoting their CTS. In addition, EFL secondary school teachers, in their turn, showed their large interest towards promoting their learners' HOTS, but they mostly use group work in their classes rather than technology. This lack of using technology in the classroom can not be interpreted as they have a negative attitude towards it; instead, they face some obstacles which hinder them to do so. They also gave some simple ways and strategies for using technology to promote their EFL learners' CTS.

References

Amziane, H ; Guendouzi, A. (2015). *Algerian EFL Course, the Digital Competence, and Critical Thinking Skills.* Arab World English Journal. Tizi Ouzou University: Tizi Ouzou

Bouanani, N. (2015). *Enhancing Critical Thinking Skills through Reflective Writing Intervention among Business.* IOSR Journal of Research & Method in Education (IOSR-JRME), 5 (1), 50-55. University Mohammed V: Morocco

Chakrabart, A. (2002). *Engineering Design Synthesis: Understanding, Approaches, and Tool.* Springer: India.

Richlin, D. L (2006). *Handbook of Research on Advancing Critical Thinking in Higher Education Blueprint for Learning: Constructing College Courses to Facilitate, Assess, and document learning.* Stylus: Virginia

Glicken. M, D. (2005). *Improving the Effectiveness of the Helping Professions: An Evidence-Based.* Sage: UK.

Sherrie, W. (2015). *Handbook of research Research on Advancing Critical Thinking in Higher Education.* Information science reference: USA.

Zheng, H; Wang, X. (2016). *The Use of Electronic Dictionaries in EFL Classroom. Studies in English Language Teaching. 4(1).Shantou University: Shantou*