

On the Correlation between Algerian EFL Learners' Critical Thinking Skill and Reading Ability

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Abstract

The present work purports to study the relationship between critical thinking and reading ability among EFL learners in the Algerian context. Data for the study are collected from twenty-two master one students in the department of English at 8 Mai 1945 Guelma University, Algeria and seven teachers working at two Algerian universities: 8 Mai 1945 Guelma, and Badji Mokhtar Annaba. Instruments used to collect the data are; a critical thinking test, the IELTS (International English Language Testing System) reading test, semi-structured interviews and instant messages interviews. The nature of the relationship between EFL learners' critical thinking level and reading ability is determined through the calculation of the correlation coefficient (r). It was revealed that there is a significant positive correlation between the study variables.

Keywords: critical thinking, reading ability, correlation, semi- structured interviews, instant messages interviews

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Résumé

Cette contribution vise à étudier la relation pouvant exister entre la pensée critique et la capacité de lecture chez les étudiants en première année master du département d'anglais de l'Université 8 Mai 1945 sise Guelma. Dans ce contexte, la collecte des données est réalisée auprès de vingt-deux étudiants et sept enseignants dont ceux pratiquant simultanément à l'Université Badji Mokhtar d'Annaba. Nous utilisons comme outils de recherche : un test de pensée critique, le test de lecture IELTS (système international de test de la langue anglaise), des entretiens semi-directifs et des interviews à messages instantanés. Afin de pouvoir déterminer la nature de la relation existant entre le niveau de pensée critique des apprenants et la capacité de lecture, il a été effectué le calcul du coefficient de corrélation (r). Il en résulte suite à cette investigation, qu'il existe une corrélation positive et significative entre les différentes variables.

Mots clés : pensée critique ; capacité de lecture ; corrélation ; entretiens semi-directifs ; interviews à message instantané.

ملخص

يهدف هذا العمل إلى دراسة العلاقة بين التفكير النقدي وقدرة القراءة لدى طلبة اللغة الإنجليزية كلغة أجنبية في الجامعة الجزائرية. تم جمع بيانات الدراسة، التي أجريت على اثني وعشرين طالب ما سستير، في قسم اللغة الإنجليزية بجامعة 8 ماي 1945 قالمة، وسبعة أساتذة من جامعتي: 8 ماي 1945 قالمة، وباجي مختار عنابة. تم الاعتماد على الوسائل التالية: اختبار التفكير النقدي، اختبار القراءة وفقا لنظام اختبار اللغة الإنجليزية الدولي، المقابلات شبه المبرمجة، إضافة الى مقابلات الرسائل النصية الفورية. تم تحديد طبيعة العلاقة بين مستوى التفكير النقدي وقدرة القراءة من خلال حساب معامل الارتباط. تبين وجود علاقة ارتباطية ايجابية بين متغيرات الدراسة.

الكلمات المفتاحية: التفكير النقدي؛ قدرة القراءة؛ علاقة الارتباط؛ المقابلات شبه المبرمجة؛ مقابلات الرسائل النصية الفورية.

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I- Introduction

In order to meet 21st century demands and with forces in globalization requiring autonomous, creative, motivated, and tactful workers; the emphasis in higher education, on thinking skills is increasing. It is recommended that learners need to possess the ability to think “critically and creatively at the highest level” (Fisher 2001, 21).

EFL learners are always engaged in tasks that require communication, writing, and reading abilities. To this end, learners cannot be mere passive participants. They rather need to think critically when reading different texts, or when writing, and even when listening or speaking with others. Providing the pivotal role that critical thinking has, the present work focus on the relation between EFL learners’ critical thinking and their reading ability.

In fact, having a good grasp of reading passages requires mastering several critical thinking skills. The act of reading demands a logical analysis and explanation of texts to formulate new perspectives based on what has been concluded from a given text. Additionally, the ability to find different interpretations of texts, drawing plausible conclusions, as well as evaluating information, are all critical thinking skills that aid readers to develop a critical eye. The correlation between EFL learners’ critical thinking skill and their reading ability, mainly in the Algerian context, has not been profoundly explored. Hence, the current work attempts to study the correlation between the critical thinking skill and the reading ability among EFL learners’ at the department of English, 8 Mai 1945 Guelma, Algeria and to investigate teachers’ awareness and views on that correlation.

I.1. The Nature of Critical Thinking

An examination of the literature displays that much has been written about critical thinking. Paul (1985) mentioned that approximately 2000 articles on or relevant to critical thinking have been presented between 1978 and 1985. Researchers have offered different definitions of critical thinking, echoing different perspectives. Dewey (1938: 9) considers critical thinking as an “active, persistent and careful consideration of a belief or supposed form of knowledge in the light of the grounds which support it and the further conclusions which it tends”. The emphasis, in Dewey’s definition, is on reflective thinking as well as on asking questions to oneself about the beliefs via a reasoning evaluation.

Moreover, critical thinking has been conceptualized as problem solving. The early conceptualization of critical thinking in the context of problem solving was in the work of Dressel and Mayhew (1954), where the authors suggested different problem-solving abilities, which have numerous aspects of critical thinking. Young (1980) also affirms that problem solving is a good definition of critical thinking when he mentions that critical thinking “ can be characterized by the ways in which the contents and mechanisms of human cognition are involved in the solution of problems and the making of decisions and judgments” (ix). Problem solving can be seen as critical thinking since it needs the use of skills that require domain specific knowledge and techniques among disciplines. However, the conceptualization of critical thinking as problem solving has been questioned and criticized. Beyer (1985) questions the supposition that learners learn critical thinking via solving problems, emphasizing that critical thinking should not be set as equal to problem solving. Furthermore, Kurfiss (1988) points out that there is a difference between critical thinking and problem solving. She argues that the aim, in critical thinking, is to build credible representation of the situation or the issue, whereas, in problem solving, the goal is to find correct answers. Kinney (1980) concludes that viewing critical thinking as problem solving is criticized because it is narrow and does not completely cover the scope of critical thinking.

One of the popular conceptualizations of critical thinking is in terms of logic or, in clearer words, with deduction and induction; a conceptualization, which is referred to as the classic way of defining critical thinking (Facione and Facione, 1997). It is worth mentioning that, while, in deductive reasoning, the move is from general principles to particulars, in inductive reasoning, drawing conclusions, theories or principles come from specifics (Beyer, 1987). In an attempt to explore the notion of critical thinking, Ennis (1962) identified twelve aspects of critical thinking, claiming that they would provide a research base in teaching and assessing critical thinking. Both deductive and inductive reasoning are present in Ennis (1962) twelve aspects of critical thinking. It is also important to state that Ennis (1962) views critical thinking as a skill which is free from content and context.

However, there are reservations on associating logic with critical thinking. For example, Mc Peck (1981:22) affirms that "the real problem with uncritical students is not a deficiency in a general skill, such as logical ability, but rather a more general lack of education in the traditional sense". In other words, the researcher is stressing that there is no pedagogical relation between critical thinking and logic. For Mc Peck, critical thinking is content-specific and in order to be able to think in a critical way, there should be a control of the knowledge related to the field. He adds that logic is not dependent on the subject, and thus, is not related to critical thinking. Therefore, he concludes that being able to direct logical thinking does not expectedly foster critical thinking.

Another significant term, which has been connected to critical thinking, is metacognition. This latter is known as thinking about thinking. For Halonen (1995) metacognition is supervising critical thinking ability. According to Kuhn (1999), critical thinking is a form of metacognition, including metacognitive knowledge, meta-strategic knowledge, and epistemological knowledge. Other researchers, however, insist that critical thinking and metacognition are different. For example, Lipman (1988) argues that one can think about one's thought in a way that is not reflective, and hence, metacognition is not critical. It can be argued that metacognition is a novel component of critical thinking since controlling a thought aids in engaging in high thinking.

One of the influential definitions of critical thinking has been presented in the Delphi Report on Critical Thinking, published in 1990. It has been described as "the process of purposeful, self-regulatory judgment; an interactive, reflective, reasoning process" (Facione, Facione and Sanchez, 1994: 345). Facione and Facione (1997) states that this self-regulatory judgment necessitates analysis, interpretation, inference, explanation, evaluation and metacognition. According to the Delphi definition, the focus of critical thinking is on making decisions in the context of the purpose or the problem. Additionally, when involved in the process of decision-making, one thinks and evaluates one's thinking (Facione, 1990).

I.1.1 Taxonomies of Critical Thinking

There are several classifications of critical thinking. Bloom's (1956) categorization, is one of the prominent taxonomies, which is utilized to teach and assess higher order thinking skills. Thinking is classified into six levels of complexity in Bloom (1956) taxonomy. Knowledge, comprehension, and application are seen as the lowest levels; whereas, the highest three levels are analysis, synthesis, and evaluation.

It is worth mentioning that Anderson and Krathwohl (2001) presented a new version of Bloom's original taxonomy. The revised taxonomy takes a form of a two-dimensional structure: Knowledge and Cognitive Process. The latter includes the six categories that are renamed remember, understand, create, apply, analyze, and evaluate.

Facione (1990), in the Delphi Report of the American Philosophical Association, presents another swayful critical thinking taxonomy. He considers interpretation, analysis, evaluation, inference, explanation, and self-regulation as critical thinking skills.

It is important to state that there are other accepted taxonomies of critical thinking. Hager et al. (2003) affirms that Ennis's (2001) is a novel taxonomy of critical thinking. It includes four clusters. The first group includes clarification, the second one comprises the base for decision, the third cluster involves inference, and the last one includes supposition and integration (Hager et al., 2003: 307-308).

I. 2. The Nature of Reading

Reading is an important element of what is known as “literacy skills”. The latter involve the ability to read and write different types of texts for different purposes (Cameron, 2001: 124). When defining literacy, Inglis and Aers (2008, p.32) also referred to reading, emphasizing that “... It is the ability to read and write which makes a person ‘literate’, with varying degrees of fluency”.

Different researchers have defined reading; according to Aebersold and Field (1997), reading starts when people are confronted with the texts and allot meaning to the written characters in the texts. In order for the reading process to start, the existence of two important parts, which are the text and the reader, is essential.

Furthermore, reading is conceptualized as a cognitive process in which readers answer a message from a writer, who is in distant space and time (Davies, 1995: 1). For Grellet (1998:7), reading requires anticipating, checking, and guessing. In other words, readers need to activate their schema knowledge when reading a text.

It could be concluded that reading is a process which includes readers’ ability to communicate with the author, and to make use of their prior knowledge in order to get the necessary meaning and understand the appropriate message of texts.

II– Methods and Materials

The correlation between EFL learners’ critical thinking and their reading ability is determined through the calculation of the correlation coefficient ‘r’. In investigating teachers’ views towards that correlation, a semi- structured interviews and instant messages interviews are conducted with seven teachers from two different universities in Algeria; 08 Mai 1945, Guelma and Badji-Mokhtar, Annaba. Participants, instruments used to collect the data as well as the data collection results and discussion are elucidated in separate sections.

1. Participants

A group of 22 students, who are randomly selected from the target population of Algerian Master one LMD students, studying at the department of English at 08 Mai 1945 Guelma University, for the academic year 2019-2020, served as subjects of this study. This study’s interview was conducted with 7 teachers from two institutions; 08 Mai 1945, Guelma University, and Badji Mokhtar- Annaba University. The researchers’ aim behind interviewing teachers from two places is to collect data from a variety of departments.

2. Instruments

2.1 Critical Thinking Test

In order to measure the critical thinking skill, we designed a test, based on Facione and Facione's (1990) conceptualization of critical thinking. It is worth noting that Facione (1990) stressed that critical thinking involves analysis, explanation, evaluation, interpretation, inference, and self-regulation. The latter was not included in the current study's test. Therefore, the test contains five questions, and aims to measure students' analysis and interpretation of arguments. It also attempts to measure students' ability to draw inferences as well as their ability to provide reasons and pursue evidence open-mindedly. Students are presented with a pie chart and a short passage on the enhancement of English Language in Algerian Higher Education and Scientific Research. The topic of the test is intentionally selected since it is a subject of consistent discussion in Algeria.

2.2 Reading Test

The reading section of IELTS Practice Tests: Cambridge IELTS 13 Academic Student's Book with Answers: Authentic Examination Papers (2018) is used, with permission of the licensor through PLSclear, to test students' reading ability. The test includes three passages with forty questions. Different types of questions are utilized, including: multiple choice, matching information, matching heading, sentence completion, table completion, identifying the writer's views or claims (yes/no/not given), and identifying information (true/false/not given).

2.3 Teachers' Interviews

A semi-structured interview and instant message interviews are conducted to investigate teachers' views and awareness on the correlation between students' critical thinking and their reading ability.

III- Results and discussion

1. The Correlation between Students' Critical Thinking and Reading

In carrying out this study, a critical thinking test is used to examine students' level of critical thinking skill. The test is scored using Facione and Facione (1994) Holistic Critical Thinking Skills Rubrics (HCTSR). This latter is, according to Facione and Facione (1994), a four level rubric, which deals with critical thinking as a "set of cognitive skills supported by certain habits of mind". Students' critical thinking skills; interpretation, analysis, evaluation, inference, explanation as well as the disposition to pursue evidence open-mindedly are grouped together and scored as significantly weak 1, unacceptable 2, acceptable 3, and strong 4. The IELTS reading section is used to assess students' reading ability. The reading Band Score from 4 to 9 is used to calculate students' reading test scores.

In order to study the relation between the independent variable, which is critical thinking, and the dependent variable, which is reading, the correlation coefficient "r" is calculated. According to Stangor (2014:363):

The Pearson product-moment coefficient correlation (Pearson's r) is used to specify the direction and magnitude of linear association between two quantitative variables. The coefficient correlation can range from $r = -1.00$ to $r = +1.00$. Positive values of r indicate that the relationship is positive linear and negative values indicate that it is negative linear. The strength of the correlation coefficient (the effect size) is indexed by the absolute value of the correlation coefficient.

Since there is always a possibility that the results might show no relation between the two variables of the study, we need to mention the null hypothesis. This latter will be either confirmed or disconfirmed. Hence, the null hypothesis of the present work is as follows:

H0 = there is no relationship between students' critical thinking and their reading ability.

H0: r = 0.

The alternative hypothesis:

H1 = there is a positive relationship between students' critical thinking and their ability.

H1 = r > 0.

In order to calculate the correlation coefficient (r), we applied the following formula:

$$r = \frac{n(\sum xy) - (\sum x)(\sum y)}{\sqrt{[n\sum x^2 - (\sum x)^2][n\sum y^2 - (\sum y)^2]}}$$

Where

n: the number of scores

X: scores of the independent variable (critical thinking test scores)

Y: scores of the dependent variable (reading test scores)

The following table presents critical thinking and reading tests scores.

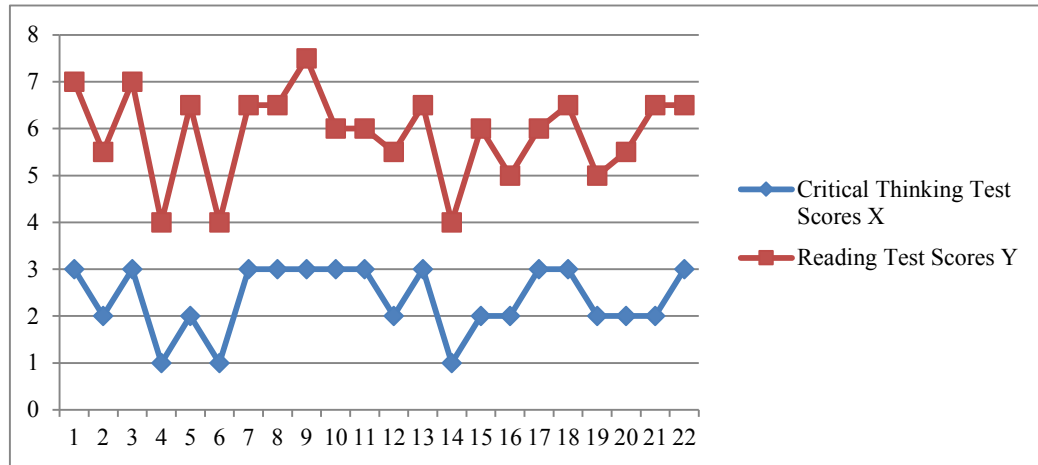
Table 1: Critical Thinking and Reading Tests Scores

| Number of Students | Critical Thinking Test Scores X | Reading Test Scores Y |
|--------------------|---------------------------------|-----------------------|
| 1 | 3 | 7 |
| 2 | 2 | 5.5 |
| 3 | 3 | 7 |
| 4 | 1 | 4 |
| 5 | 2 | 6.5 |
| 6 | 1 | 4 |
| 7 | 3 | 6.5 |
| 8 | 3 | 6.5 |
| 9 | 3 | 7.5 |
| 10 | 3 | 6 |
| 11 | 3 | 6 |
| 12 | 2 | 5.5 |
| 13 | 3 | 6.5 |
| 14 | 1 | 4 |
| 15 | 2 | 6 |
| 16 | 2 | 5 |
| 17 | 3 | 6 |
| 18 | 3 | 6.5 |

| | | |
|----------|----|-------|
| 19 | 2 | 5 |
| 20 | 2 | 5.5 |
| 21 | 2 | 6.5 |
| 22 | 3 | 6.5 |
| Σ | 52 | 129.5 |

$\Sigma X = 52$
 $\Sigma Y = 129.5$
 $\Sigma X^2 = 134$
 $\Sigma Y^2 = 782.75$
 $(\Sigma X)^2 = 2704$
 $(\Sigma Y)^2 = 16770.25$
 $r = 0.85$

Graph 1: The Correlation between Students' Critical Thinking and their Reading Ability



The calculation of the coefficient resulted in a positive value 0.85, which is well above the zero $0.85 > 0$. Graph 1 displays a linear correlation between x and y. Hence, we can say that there is a strong positive correlation between students' critical thinking and their reading ability. Therefore, the null hypothesis is rejected.

2. Analysis of Teachers' Interviews

The interview questions are classified into five sections. An interpretation of respondents' answers is offered followed by a general discussion.

2.1. Teachers' Conception of Critical Thinking

The aim of the first question was to investigate how teachers view critical thinking. Teachers offered many definitions of critical thinking. Certain teachers view critical thinking as a process of solving problems. Typical examples include:

"Critical thinking is the process through which teachers can make sense of a puzzling situation and work through it to generate solutions."

"I think it's a mental activity that requires the processing of complex issues."

One interviewee thinks that it is possible for teachers to enhance learners' critical thinking skills through reflecting on their teaching. That teacher also believes that reflection in teaching helps in decision making and prepares teachers for the new educational changing situations:

"I think that critical thinking is a skill that can be developed, and this could be through starting with a certain level of awareness of one's teaching and ends with making informed decisions based on questioning, and then analyzing and interpreting educational issues in a way that brings out innovation in teaching and educational change."

Other interviewees related critical thinking to objectivity and asking questions:

"Critical thinking is based on asking a sequence of questions rather than providing a common and straightforward answer."

"Critical thinking is the ability to objectively analyse information."

2.2. Critical Thinking Impact

All interviewees view critical thinking as having an impact on: listening, reading, speaking and writing.

"I think it does. It does have an impact on the four mentioned."

"Of course, It has an impact on all the abilities."

"Eh, I think all of them, without exception."

It was also argued that critical thinking's impact varies according to which ability is emphasized and it is highly required in reading and writing. A typical response includes:

As far as listening and speaking are concerned, thinking critically is not so much required as the process of listening and speaking tend to be immediate.

"Both of listening and speaking, require the use of attention to what the other is saying, making sense or being able to infer what has been said or listened to, as well as an ability to express oneself, particularly, in conversation. In terms of writing and reading, I think there is plenty of time to exercise the skill of critical thinking. When producing a piece of writing, several aspects need to be considered, doing so, requires not only grouping sentences together to finally produce something. The act of writing calls for the use of some skills. Among these is the ability to express one's thoughts appropriately so that the text will readable. Once ideas are clearly addressed, one needs to assess these and how they relate to each other on the one hand, and to the wider theoretical understanding on the other hand. This is done through critical scrutiny and analysis of what has been written. In reading, however, mental processing is highly important because of the use of different skills. These skills range from developing an awareness of what the text is about, making sense of what it expresses, and being able to explain key ideas, to going beyond simple interpretations to deeply analyzing the content and judging its worth."

It is noticeable from the quotation that this interviewee believes that learners are not really required to think critically in listening and speaking. They are rather demanded to pay attention to what has been said in the listened material. The quotation also reveals that critical thinking is important in reading since it helps to enhance reflective thinking, metacognitive awareness, explanation, interpretation of a text, analysis of information, as well as the ability to evaluate texts.

2.3. Critical Thinking and Reading

The third question of the interview endeavours to, deeply, investigate teachers' views on fostering critical thinking in reading. Interviewees agreed that critical thinking should be adopted in teaching as a key to develop language abilities. Teachers offered different explanations:

"In terms of reading, developing students' critical thinking is important as this would allow more openness and open-mindedness when reading different pieces of information."

This response affirms that the development of critical thinking would enhance students' critical thinking dispositions like open-mindedness."

Others responses display again ideas mentioned in several works in the field of philosophy like Dewey (1938) and Facione (1990). Teachers believe that critical thinking can greatly help learners to understand the hidden meaning of texts through asking questions and thinking analytically, as well as aid them to activate their schema knowledge to deal with new information. Interviewees also stressed that developing critical thinking in reading would enhance learners' self-regulation and reflection. The following are representative examples:

"Students with critical thinking abilities would always approach texts with a sceptical eye of its underlying thoughts, deeply analyse and examine what they read, and go beyond it through accounting for any similar past readings and connect with what they might be exposed to in the future."

"Implementing critical thinking in reading would also help learners in being reflective in the sense that they would always, when reading, challenge any pre-established assumptions or beliefs, and never take these for granted."

2.4. Critical Thinking Sub-Skills that should be emphasised in Reading

Teachers were asked to decide on which critical thinking sub-skills (analysis, evaluation, explanation, inference, and interpretation) should be emphasised in a reading course. The following interviewee's answer stress the importance of all the sub-skills:

"All of them. They would help in learning a part. Be more productive (even in a passive skill like reading) and effective."

Another respondent emphasised the importance of analysis, evaluation, and interpretation, explaining that these are the frequent techniques utilized with students in the classroom.

"Analysis, evaluation and interpretation. Simply because these are the techniques I use with my students. I never used the others before."

Other respondents emphasised the importance of inference, analysis, and evaluation. For example:

"All of the skills mentioned are crucial when it comes to reading. However, I think that the most important skills to focus on are inference, analysis, and evaluation. Interpretation and explanation are just two processes used in the analysis phase."

“When reading a text, it is of a great importance for students to possess the ability to infer the different meanings presented in that text along with any potential insights. The inference of what the different part of the text are about leads the student to develop a general understanding and generate meanings out of it. This understanding of the text is an initial step for a more complex stage which is analysis. The latter involves making logical connections between the different chunks of the text, examining the underlying meanings deeply, and hypothesising about the possible understandings the text holds. Then comes evaluation which is about making sense of the reasoning process that the student has gone through and developing other suggestions or extending what has been grasped from the text.”

It is displayed from the interviewee’s quotation that interpretation and explanation are considered as two processes utilized in the stage of analysis. Furthermore, inference, analysis and evaluation are seen as three important stages of critical thinking that teachers should focus on in a reading course. It is argued here that being able to draw several conclusions from a given text aids learners to grasp its meaning as well as it does help them to produce new different notions from it. This generation of new meanings, according to the interviewee response, is a preparation for the second stage which is analysis. The latter includes logical reasoning, deep interpretation of meaning and drawing possible conclusion of a text.

Only one interviewee added a sub-skill, which is reflection, to be emphasised in reading, commenting:

“What can be added as a sub-skill to these is reflection. The latter can work as a reliability check for the whole process. This works through reconsidering one’s criticality when approaching a text or any reading material and thinking of the extent to which eh what has been reached by the end makes sense or not.”

2.5. Factors Contributing to develop Critical Thinking in Reading

Interviewees provided several elements contributing to critical thinking enhancement in reading. Examples include:

“Factors like diversifying types of activities and the way they engage with texts eh sometimes it’s with group work or in pairs, other times individually eh give them homework assignments preparing readings that can’t be done in class. I loved the way my students engaged with each other more effectively just because I made them work together. They were more energetic and less shy. You know! Last thing group work would draw their attention to different ideas. Will be able to see things from different perspectives which means critical thinking.”

“Encouraging dialogue and collaboration between students when dealing with reading materials so that to make the process of thinking critically less complex for students.”

“Teaching the different critical sub-skills mentioned earlier and emphasising their importance in real reading materials.”

Respondents’ answers echo an important role that collaborative work can play in developing critical thinking in reading. They believe that working collaboratively helps learners to act as active elements in the learning process. Their answers also demonstrate that collaborative work encourages the exchange of students’ different ideas as well as improving their interaction. All these advantages, teachers emphasise, would raise learners’ awareness to tackle issues from different points of view, and therefore, aid them to develop, or facilitate, the process of critical thinking in reading. Participants added that teaching the different critical thinking sub-skills in reading is an important factor.

3. General Discussion

The aforementioned findings of Pearson correlation affirmed the study's main hypothesis, displaying an important positive relationship between students' critical thinking and their reading ability.

Furthermore, the semi-structured interviews and interviews conducted via instant messages revealed that teachers are not fully aware of the relationship between EFL students' critical thinking and their reading ability. Certain teachers define critical thinking as problem solving.

In fact, problem solving has been conceptualized as an appropriate definition of critical thinking. The latter is seen as a person's ability to solve problems and intellectual puzzles (Pascarella and Terenzini, 2005). However, and as we have stressed earlier, researchers like Beyer (1985) questioned and criticized this conceptualization. Therefore, it is important to differentiate between critical thinking that involves reasoning about what is known as "ill-structured problems" and problem solving that includes answering "well-structured problems". Other respondents emphasized that reflection on teaching helps to develop critical thinking. Reflective thinking is mainly highlighted in various works within the philosophical field. Examples include Dewey (1938) and Facione (1990).

It is also noticeable from interviewees responses that some teachers are not fully aware that paying attention when speaking or listening, being able to infer what has been said or listened to, as well as being able to express oneself are learned in a course of critical thinking. The latter improves the ability to express, analyse, self-correct and evaluate ideas and beliefs in writing and even in speaking.

Additionally, some teachers believe that critical thinking aids to develop students' open-mindedness. It is worth mentioning that critical thinking involves different dispositions, and these dispositions are seen as habits of mind and attitudes (Facione, 1990). They are also separate from the abilities that characterize critical thinking. Critical thinking dispositions involve fair mindedness (Bailin et al., 1999; Facione, 1990), flexibility (Facione, 1990; Halpern, 1998), and being motivated to be well-informed (Ennis, 1985; Facione, 1990).

Other responses indicate that some teachers do not make use of explanation and inference, which are, according to Facione (2018), amongst the essential critical thinking skills.

Working collaboratively was emphasised as one of the significant factors contributing to the development of students' critical thinking in reading. In fact, collaborative work helps, to a great extent, students to deal with new and changing situations. It also encourages them to analyze, solve real world problems and think critically. Indeed, the vivid exchange of the different points of view that emerges when working in groups will not only motivate students, but also enhances their critical thinking.

IV- Conclusion

The present work investigated the correlation between EFL learners' critical thinking and their reading ability. Two tests were carried out; critical thinking test and reading test. In order to determine the relationship between students' critical thinking and their reading ability, the correlation coefficient was calculated. Semi-structured interviews and instant messages interviews were conducted with teachers to examine

their awareness and views of the relationship between students' critical thinking and their reading ability.

The following points can be underlined on the basis of the collected data in this study:

- The development of critical thinking contributes to the development of reading ability, as learners will be able to analyse and understand the hidden meaning of texts. In addition, analysis, evaluation, inference, interpretation, explanation, and self-regulation, which are described as essential critical thinking skills according to Facione (2018), aid learners to deal with different texts in a course of reading.
- Working collaboratively is among the key factors that contribute to the development of critical thinking in reading. Types of activities targeted to engage students in the learning process is also an important element that should be taken into account.
- Reflection can be an important phase, with an aim of allowing learners to reflect on the process of an approach targeted to develop the critical thinking skill. We are developing this idea in another experimental research work.

- Appendices

Interview Questions

- 1- How would you define critical thinking?
- 2- Do you think that critical thinking has an impact on
 - a- Listening
 - b- Reading
 - c- Speaking
 - d- Writing
 - e- All of them
- 3- Would you justify your answer please?
- 4- As an EFL teacher, do you think that students' critical thinking should be fostered in a reading course?
 - a- Yes
 - b- No
- 5- Would you justify your answer please?
- 6- What are the critical thinking sub-skills that should be emphasized in a reading course?
 - a- Analysis
 - b- Evaluation
 - c- Explanation
 - d- Inference
 - e- Interpretation
 - f- All of them
 - g- Other
- 7- Would you justify your answer please?
- 8- What elements can contribute to the development of students' critical thinking in reading?

Referrals and References

- [1] Aebersold, J., A. Field M.L. (1997). From reader to reading teacher: issues and strategies for second language classrooms. New York. Cambridge University Press.
- [2] Anderson, L. W. Krathwohl, D. R., & Airasian, P. W. (2001). *A taxonomy for learning, teaching, and assessing: A revision of Bloom's taxonomy of educational objectives*. New York: Longman.
- [3] Bailin, S., Case, R., Coombs, J. R., & Daniels, L. B. (1999). Conceptualizing critical thinking. *Journal of Curriculum Studies*, 31(3), 285–302.
- [4] Beyer, B.K. (1985). Critical thinking: What is it?, *Social Education*, vol.40, pp.270- 276.
- [5] Beyer, B.K. (1987). *Practical strategies for the teaching of thinking*. Allyn and Bacon, Inc., Boston.

- [6] Bloom, B. (1956). *Taxonomy of educational objectives*. New York: David McKay Co. Inc.
- [7] Cameron, L. 2001. *Teaching Languages to Young Learners*. Cambridge: Cambridge University Press.
- [8] Davies, Florence (1995). *Introducing Reading*. London: Penguin Books Limited. Dewey, J. (1938). *Experience and education*. NY: Collier.
- [9] Dressel, P.L. & Mayhew, L.B. (1954). *General education: Explorations in evaluation*, the final report of the cooperative study of evaluation in general education of the American Council on Education, American Council on Education, Washington, D.C.
- [10] Ennis, R.H. (1962). A concept of critical thinking: A proposed basis for research in the teaching and evaluation of critical thinking ability, *Harvard Educational Review*, vol.32, pp.81-11
- [11] Ennis, R. H. (1985). A logical basis for measuring critical thinking skills. *Educational Leadership*, 43(2), 44–48.
- [12] Facione, N.C. Facione, P.A. (1997). *Critical thinking assessment in nursing education programs: An aggregate data analysis*, The California Academic Press, Millbrae, CA.
- [13] Facione, N.C., Facione, P.A. and Sanchez, C.A. (1994) Critical thinking disposition as a measure of competent clinical judgment: The development of the California critical thinking disposition inventory. *The Journal of Nursing Education*, 33, 345-350.
- [14] Facione, P. A. (1990). *Critical thinking: A statement of expert consensus for purposes of educational assessment and instruction*. Millbrae, CA: The California Academic Press.
- [15] Facione, P. A. (2018). *Critical Thinking: What is it and What it Counts*. Measured Reasons LLC and Insight Assessment. Retrieved from <https://www.insightassessment.com/wpcontent/uploads/ia/pdf/whatwhy2018.pdf> (13/08/2019)
- [16] Facione, P.A., Facione, N.C. (1994). The Holistic Critical Thinking Scoring Rubrics HCTSR Retrieved from https://insightassessment.com/wpcontent/uploads/ia/pdf/Rub_HCTSREnglish.pdf (15/08/2019)
- [17] Fisher, A. (2001). *Critical thinking: An Introduction*. Cambridge, UK: Cambridge University Press.
- [18] Grellet, Françoise. 1998. *Developing Reading Skill*. Cambridge: Cambridge University.
- [19] Hager, P., Sleet, R., Logan, P., & Hooper, M. (2003). Teaching critical thinking in undergraduate science courses. *Science & Education*, 12(3), 303-313.
- [20] Halonen, J. S. (1995). Demystifying critical thinking. *Teaching of Psychology*, 22(1), 75–81.
- [21] Halpern, D. F. (1998). Teaching critical thinking for transfer across domains: Dispositions, skills, structure training, and metacognitive monitoring. *American Psychologist*, 53(4), 449-455.
- [22] IELTS Practice Tests: *Cambridge IELTS 13 Academic Student's Book with Answers: Authentic Examination Papers*. Cambridge University Press. (used with permission of the licensor through PLSclear.)
- [23] Inglis, F. and Aers, L. (2008) *Key Concepts in Education*, London, Sage.
- [24] Kinney, JA. (1980). Why bother? The importance of critical thinking, in Young, R.E. *Fostering critical thinking: New directions for teaching and learning*, no.3, Jossey-Bass, San Francisco, pp.1-10.
- [25] Kuhn, D. (1999). A developmental model of critical thinking. *Educational Researcher*, 28(2), 16–26
- [26] Kurfiss, J. G. (1988). *Critical thinking: Theory, research, practice, and possibilities*, ASHE ERIC Higher Education Report no.2, Association for the Study of Higher Education, Washington D.C.
- [27] Lipman, M. (1988). Critical thinking—What can it be? *Educational Leadership*, 46(1), 38-43.
- [28] McPeck, J.E. (1981). *Critical thinking and education*, Martin Robertson, Oxford.

- [29] Pascarella, E. T., & Terenzini, P. T. (2005). How college affects students: A third decade of research. San Francisco, CA: Jossey-Bass.
- [30] Paul, R.W. (1985). Critical thinking research: A response to Stephen Norris, *Educational Leadership*, vol.42, pp.46.
- [31] Stangor, C. (2014). *Research methods for the behavioral sciences* (5th ed). New York: Cengage Learning.
- [32] Young, R. E. (1980). Fostering critical thinking: *New directions for teaching and learning*, no.3, Jossey-Bass, San Francisco.