

## Investigating the Extent of Critical Thinking Support Available to University Students: The Case of Second-year Students at ENSC

استكشاف مدى توافر الدعم للتفكير النقدي بين طلاب الجامعات: دراسة حالة طلبة السنة الثانية بالمدرسة العليا للأساتذة بقسنطينة

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**Abstract:** Success across different fields depends on proficiency in critical thinking (CT). Accordingly, the study aims to examine the level of support offered to second-year students from the Department of English at ENS Constantine in Algeria to develop as critical thinkers. To fulfill such aim, an email interview was conducted with 15 participants to explore their perceptions and experiences regarding CT assistance. Results reveal the absence of systematic guidance for students in relation to CT, and a lack in students' ability in analytic and evaluative thinking. Moreover, the efforts undertaken by instructors to foster CT does not transcend the form of advice and emphasizing the crucial role of becoming critical thinkers. The study recommends educators to provide their students with the requisite assistance to effectively deal with complex problems.

**Keywords:** Critical Thinking Support, EFL students, ENS Constantine, E-mail interview

**المخلص:** يعتمد النجاح عبر مختلف المجالات على الكفاءة في التفكير النقدي. وبناءً على ذلك، تهدف الدراسة إلى بحث مستوى الدعم المقدم لطلبة السنة الثانية من قسم اللغة الإنجليزية بالمدرسة العليا للأساتذة بقسنطينة، الجزائر للتطور كمفكرين نقديين. لتحقيق هذا الهدف، أجريت مقابلة عبر البريد الإلكتروني مع 15 من المشاركين لاستكشاف وجهات نظرهم وتجاربهم بشأن دعم التفكير النقدي. كشفت النتائج عن عدم وجود إرشادات منهجية للطلاب فيما يتعمق بدعم التفكير النقدي، وعدم قدرة الطلاب على التفكير التحليلي والتقييمي. علاوة على ذلك، فإن الجهود التي يبذلها الأساتذة لتعزيز التفكير النقدي لدى طلابهم لم تتجاوز شكل المشورة والتأكيد على الدور الحاسم في أن يصبحوا مفكرين نقديين. توصي الدراسة الأساتذة بتزويد طلابهم بالمساعدة اللازمة للتعامل بفعالية مع المشكلات المعقدة.

**كلمات مفتاحية:** دعم التفكير النقدي، طلبة الجامعة، قسنطينة، مقابلة بالبريد الإلكتروني

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## **1. INTRODUCTION**

Throughout the course of their lives, human beings unavoidably have to sort out or handle all concerns that make life hard and unpleasant. This is not simple; but for humans with the powerful tool of the mind, it is not impossible. As it is stated, the human mind is far more powerful than any technology, device, or instrument (Foroux, 2017). It is an incredible machine that can process large amounts of information quickly and perform difficult tasks with ease. Despite advancement in neuroscience, its complexity is still mysterious, which inspires one's pursuit for understanding. Its intricacy and utility surpass that of any piece of technology provides countless opportunities for innovation (Greene, 2013). The mind with its thinking power is a marvel. Thinking, or positive thinking in particular, helps to experience an amazing improvement within oneself; it enables one to dominate hardships and tragedies of the world. In addition, it helps to modify or change one's undesirable circumstances, improves one's relations with others, and makes them popular, esteemed, and well-liked. Moreover, it allows a person to enjoy a delightful new sense of well-being, and to become of greater usefulness and to wield and expanded influence (Peale, 2006).

Despite the significant powers of the human mind, researchers identified serious problems within our thinking. While many people possess this formidable tool, they struggle to utilize it effectively due to a lack of understanding about its proper usage. We are irrational creatures. We believe ourselves to be good thinkers, yet studies show otherwise. We believe that the practical judgments we make are grounded in reason. However, that is untrue (Foroux, 2017). Most of our thinking is biased, distorted, partial, ignorant, or overtly prejudiced when left to function without assistance or guidance. The reason why this is the case is that one's thinking may not have been systematically educated; we need to use our thinking to change our thinking (Elder & Paul, 2013). Thinking is also considered as skilled work. This view believes that the human being is incapable to think clearly and logical without learning how, or without practicing (Elder & Paul, 2013). A similar view asserts that humans are not naturally ethical and logical beings. They possess the raw capacity to be as such, to grow as fair-minded skilled thinkers. However, in order to do so, one must (1) comprehend

how the mind functions and (2) use this comprehension to develop skills and insights (Elder & Paul, 2007).

Through their thinking, students are expected to come up with a quick fix to their problems, have a deep understanding of a body material, and handle the different situations they may find themselves in. Nevertheless, their thinking may be their worst enemy. It could be taken as one of the main causes behind their partial or complete failure in all fields of life. More significantly, this might prevent many of them from challenging their ill-considered thoughts or committing themselves to further efforts towards excellence or life changing. This does not necessarily reveal students' willingness to stand out. Instead, it might suggest a lack of opportunities that help them explore more useful ways to extend their thinking, particularly in fostering CT skills. Students are often required to think critically, yet they ignore the main skills that allow them to do so (Allen, 1997). They need concrete guidance to develop the ability to scrutinize knowledge related to diverse disciplines (Hooks, 2010), to formulate their own points of view, draw their own conclusions, and analyze or perceive the connections between ideas (Crockett, 2018). Furthermore, they need to be assisted to use higher levels of thinking, evaluation and synthesis (Moor, 2000).

The objective of this study is to investigate the extent to which target participants are educated in CT. Openly; it aims to disclose the concrete steps or procedures that students follow to analyze their thinking and the thinking of others. That is to say, it seeks to know whether they are proficient at the skills significantly needed to develop as a critical thinker. The value this investigation brings to light is that it can uncover the real obstacles that stand in the students' way to excel in solving a given problem.

The aim of the study is to answer the following research questions:

1. Are the target participants provided with support to enhance their CT skills?
2. Are they skilled in analytic thinking?
3. Are they skilled in evaluative thinking?

4. What efforts are undertaken by instructors to motivate and help their students to develop as critical thinkers?

## **2. Literature Review**

### **2.1 Definition of Critical Thinking**

Several attempts were made to define the term “critical thinking”. However, there is disagreement over the precise nature of the concept; CT is often associated with various higher order mental functions such as intelligence, domain-specific knowledge, problem-solving skills, reading comprehension, logical reasoning, and other advanced cognitive skills. Such discrepancy and divergence in conceptualizing the term reveals its complexity (Bangert-Drowns & Bankert, 1990). The definitions put forward are similar and overlapping (Halpern, 2014). After a careful review of a mountainous body of literature defining the term, it is concluded that most definitions include reasoning/logic, judgment, meta-cognition, reflection, questioning, and mental processes (Fischer, Spiker, & Riedel, 2009). Among the definitions available, that is the most appealing, inclusive, comprehensive and concise; sees CT as intellectual discipline involves actively and skillfully processing information acquired through observation, experience, reasoning, and communication to guide beliefs and actions. It relies on universal values like clarity, accuracy, precision, consistency, relevance, sound evidence, good reasoning, depth, breadth, and fairness. It examines the foundational components of thought in all forms of reasoning, including purpose, problem, or question-at-issue, assumptions, concepts, empirical supported reasoning conclusions, implication and consequences, objections from differing viewpoints, and frame of reference (Scriven & Paul, 1987). This definition was subsequently refined and expanded upon by Paul and Elder in various publications, including their website (Paul & Elder, 1997)

Along the same track, CT is also described as the procedure for analyzing and evaluating thought with the aim of enhancing it. In order to engage effectively in CT, one has to understand the most basic thinking structures ‘Elements of Thought’ as well as the most fundamental intellectual norms for thinking or ‘Universal Intellectual Standards’. The real improvement of thinking

lies in recognizing thinking as a consequence of thorough analysis and evaluation (Paul & Elder, 2007).

CT is therefore thinking that demonstrates proficiency in intellectual abilities and skills; the practice of critically analyzing your thought processes in order to make them more clear, more accurate, or more defensible (Paul & Elder, 2002). In other words, it is a self-directed, self-disciplined, self-monitored and self-correcting thinking process that entails an analysis and evaluation of thinking processes with the aim of perfecting them. More elaborately, it is a way of thinking applies to any topic, piece of information or issue. Thinkers enhance their own thinking by competently managing the foundational elements that shape thought. They also apply standards to evaluate the quality of thinking processes (Paul & Elder, 2002). According to Paul and Elder conceptualization, CT rests on the basis that thinking can be analyzed and evaluated. It involves first taking thinking apart. Then standards are applied to those parts. It is impossible to comprehend CT without also understanding its ability to break down thought into its component parts. A clear understanding of the elements constituting our thinking ensures more accurate evaluation of it. After evaluating the constituent parts, our ability to think more critically is achievable (Paul & Elder, 2008). The elements and standards of thinking were offered by Paul and Elder as a model approach to guide and improve CT.

## **2.2 Universal Intellectual Elements and Standards of Thinking**

It is important to acknowledge that while Paul and Elder have made significant contributions to the development and promotion of Universal Intellectual Elements and Standards of Thinking, these concepts are not exclusive to them. Universal Intellectual Elements and Standards of thinking are foundational concepts in the broader field of education and philosophy. Paul and Elder have been instrumental in advocating for and applying these Intellectual Elements and Standards, but the broader concepts themselves were discussed and refined by many thinkers and educators over time. For instance, Socrates in the 5<sup>th</sup> century Before Common Era (BCE) emphasized the importance of CT by encouraging questioning and dialogue. John Dewey, a prominent figure in the late 19<sup>th</sup> and early 20<sup>th</sup> centuries, advocated for experiential learning and the development of problem-solving skills in education (Paul, Elder, & Bartell,

1997). Albert Einstein's insights in the early 20<sup>th</sup> century emphasized the necessity of imagination and creativity in scientific enquiry (Miller, 2012). Similarly, Stephen Toulmin, in the mid-20<sup>th</sup> century, expanded on argumentation theory to enhance the understanding of reasoning and rationality (Wohlrapp, 2014). Robert H. Ennis, from the mid-20<sup>th</sup> century onward, focused on developing critical thinking dispositions and reflective thinking (Ennis, 2011).

Effective thinking is demanding. Our thinking would not be effective without being able to adopt the voice of our mind or the others minds. In other words, to be critical thinkers, we need to think about our thinking while we are thinking from outside our thinking (Paul & Elder, 2019). The aim of CT is to be able to gain knowledge, comprehend deeper meanings or implications behind certain information, and develop our skills, competencies in particular area of study or discipline (Paul & Elder, 2007). Also, it seeks to help us identify the strengths and weaknesses of our as well as the others' thinking (Paul & Elder, 2008). To fulfill such objectives, we need to be skilled in analytic and evaluative thinking.

To be analytic thinkers, it is important to know the basic eight intellectual structures inherent in all thinking. Intellectual structures of thinking, also referred to as intellectual elements or parts of thinking, is the idea that all thinking processes have components, and that these components enable the analysis of all thinking styles in order to fully understand them (Paul & Elder, 2008). These are:

1. *Purpose, goal, or end in view*
2. *Question at issue (or problem to be solved)*
3. *Point of view or frame of reference*
4. *The information we use in reasoning*
5. *The conceptual dimension of our reasoning*
6. *Assumptions — the starting points of reasoning*
7. *Our inferences, interpretations and conclusions*
8. *Implications and consequence — where our reasoning takes us* (Elder, 2010, p. 3).

Intellectual structures of thinking coexist within the mind as a network of related ideas, each of which influences and is influenced by the others. When one element is present, the other seven elements are typically present as well (Elder, 2010). Understanding these intellectual structures of thinking provides powerful intellectual tools that help to achieve perfection in thought. Our thinking will not excel until we think with a purpose in mind, from a particular perspective, built upon assumptions that result in implications and consequences (Paul & Elder, 2019)

Furthermore, effective thinkers need to transcend deconstructing thinking into its intellectual parts. They are also required to employ some standards to examine those elements for quality (Paul & Elder, 2008). These intellectual standards, universal intellectual standards, are concepts and principles that should be used to evaluate the worth or quality of reasoning (Paul & Elder, 2002). The following nine intellectual standards identified, (Elder & Paul, 2013), are recommended to be internalized and to be explicitly used because they are crucial for collecting, synthesizing and arranging information; for logically and rationally analyzing information, evaluating evidence and drawing conclusions; for insightfully interpreting information, ideas or situations; and for making wise and rational decisions. These abilities are essential to develop deeper understanding of subjects (Elder & Paul, 2008).

1. **Clarity:** understandable, the meaning can be grasped
2. **Accuracy:** free from errors or distortions, true
3. **Precision:** exact to the necessary level of detail
4. **Relevance:** relating to the matter at hand
5. **Depth:** containing complexities and multiple interrelationships
6. **Breadth:** encompassing multiple viewpoints
7. **Logic:** the parts make sense together, no contradictions
8. **Significance:** focusing on the important, not trivial
9. **Fairness:** justifiable, not self-serving or one-sided

The above-mentioned standards are implicitly used by all intellectuals. Whether they are explicitly aware of it or not, they would certainly like to have

clear, relevant, accurate, deep, broad, logical and significant thinking (Elder, 2010).

### **2.3 Critical Thinking and Academic Discipline**

Many scholars, including (Bangert-Drowns & Bankert, 1990), (Halpern, 1998), and (Thonney & Montgomery, 2019), believe that CT is a domain-general skill and a broad ability that can be learned and applied across multiple domains. A similar view considers CT is an enabling skill similar to reading and writing, which can be taught independently of a specific discipline (Liu, Frankel, & Crofts, 2014). A contrasting perspective, (Davies, 2013), states that CT is a set of skills and dispositions that can be applied across specific domains. Another, (Becher, 1994), emphasizes the qualitative diversity of CT skills across academic fields. He highlights the difference in what is considered reliable evidence and acceptable declarations within each discipline. Paul and Elder further contribute to this discussion by arguing that, in addition to universal intellectual standards, there are subject-specific standards that thinkers must adhere to within any discipline. Consequently, it is suggested that the correct teaching of CT should be grounded in a disciplinary context and should employ the language or terminology specific to that discipline (Davies, 2013).

For the time being, a great deal of the debate on whether CT is domain general or specific remains largely theoretical and polemic. What is evident, however, is that it combines both general and discipline-specific attributes. To implement it effectively in higher education, a certain balance should be maintained. This means fostering both universal CT skills and specific skills for different subjects. This dual focus equips students with versatile problem-solving abilities connecting to real-world needs. In short, rather seeing the debate as a binary choice, it is more effective to adopt a comprehensive approach to best prepare students for the complexities of the modern world.

### **2.4. Motivating Students to Become Critical Thinkers**

Inspiring students to be critical thinkers is necessary. They are in need of help to improve their capacity for critical thought, thoughtful decision making, problem solving with logic and solid evidence and resistance to erroneous or

misleading thinking (Facione & Facione, 2013). No single way can be adopted to achieve such goals so as to integrate students into the academic world at their best, but there are many to offer aid. A practical way to suggest is to change the focus from only discussing CT to actively encouraging students to use their thinking abilities in real world contexts (Facione & Facione, 2013). This recommendation is valuable because it allows students to thoroughly understand their thoughts and develop a logical way to approach problems. This method helps them to solve problems from different perspectives, making their problem solving skills more adaptable. Another supportive aspect of the approach to propose is the emphasis on communicating the fundamental value of reflective, fair-minded decision making to students. This approach encourages students to not only apply their thinking skills but also to understand how such decision-making processes are highly relevant to their lives and academic studies. It empowers them to enhance their critical thinking abilities and cultivate positive thinking habits. Lastly, it is useful to promote the idea of helping students through models that enable them to fearlessly follow evidence and logical reasoning, regardless of where it may lead them, even if this involves questioning their own deeply-held beliefs or temporarily setting aside their interest in something (Facione & Facione, 2013).

Education should have dual purpose: to generate well informed learners able to comprehend important, valuable, aesthetically pleasing, and influential concepts; while also nurturing individuals with the ability to think analytically and critically. This empowers them to both enrich their own lives and make meaningful contributions to their society, culture, and civilization (Lenin, 2020). This argument, is founded on the promise that (Lenin, 2020)

1. Brains are biological. Minds are created. Curriculum is thus a mind-altering device. This raises the moral requirement to treat learners as independent centers of consciousness with the fundamental ability to determine the contours of their own minds and lives.
2. Education should seek to prepare learners for self-direction and not pre-conceived roles. It is, therefore, essential that learners be prepared for thinking their way through the maze of challenges that life will present independently.

3. Education systems usually induct the neophyte into the forms-of-representation and realms of meaning which humans have created thus far.
4. Careful analysis, clear thinking, and reasoned deliberation are fundamental to democracy and democratic life.

In keeping with these suppositions, the ability to critically evaluate and analyze appears to be vital to enjoy a good quality of life. The two objectives of education raised, undoubtedly, contribute to promote students to expand their growth in CT (Lenin, 2020).

It would be beneficial to enlighten students of the decisive role that their thinking plays in their lives. Students cannot realize on their own that their thinking is the reason of the many problems they encounter. Students fail to acknowledge that thoughtless or inadequate thinking significantly influence one's life. This can potentially pose life-threatening risks, result in severe injury or even death, and cause harm not only to themselves but also to others (Paul & Elder, 2002). Being an unreflective thinker indicates incapacity to be meta-cognitive; and an inability to analyze and assess one's own thinking. Moreover, it implies an inability to work with the cognitive structures that gives rise to thinking, and a difficulty in recognizing the qualities that underlie effective thinking. Accordingly, it is better to offer students a solid foundation and clear mental frameworks to help and motivate them to change their thought patterns and habits. This is a crucial challenge that entails extensive and difficult changes in their normal routine. The exercise of challenging their thinking not only makes them more articulate about their study but also makes their thinking a reliable ground to return to whenever they encounter a problem of any kind (Paul & Elder, 2002).

### **3. Research Methodology**

#### **3.1. Data Collection Procedures**

To meet the objectives of the study, email interviews were employed as the data collection method to assess the level of support students receive in terms of CT instruction. The researcher has conducted these interviews via e-mail in order to allow participants more time for reflection without context and time

pressures. The interviewer initially suggested conducting the interviews via mobile communication. However, the students apologized for their inability to proceed with that method. As a result, the decision was made to utilize email as an alternative means to facilitate the interview. The interviews were completed within one week from their administration date.

The sample for this study involved a random selection of 15 second-year students from the Department of English at the Teachers Training School of Constantine Assia Djabbar (ENSC), chosen from a total population of 121 students.

The interview consists of eight (8) open-ended questions covering a range of topics related to CT. These questions encompass general enquiries concerning the definition and elements of CT, as well as more specific questions aimed at understanding how students apply CT. The set of questions used was provided by the Foundation for CT, an organization associated with Richard Paul and Linda Elder, prominent figures in the field of CT education. The source of these questions can be found at [www.criticalthinking.org](http://www.criticalthinking.org).

Question item one is concerned with students' own definition of CT. Its aim is to explore their understanding of the concept. Question item two aims to inspect students' awareness of the components of CT. Questions item three and four aim to investigate the students' tools of analyzing and standards of evaluating a given product of reasoning. Question item five aims to investigate students' preferred subject and how they integrate CT in such subject. Question item six aims to explore how students employ CT in the subject of Written Expression. Question item seven seeks to get some examples of the students' use of CT on a daily basis. The last question (Question item eight) investigates the extent to which teachers motivate their students to be good thinkers (critical thinkers).

### **3. Results and Discussion**

#### **3.1. Results**

##### **Question 1: *How would you define critical thinking?***

The first question is concerned with the definition of CT. It aims to uncover how the target participants perceive this notion.

Results show that eight out of fifteen respondents agreed that CT is a method by which one analyses information or ideas. In other words, their definitions generally exhibited different formulations to the same understanding.

Continuing to map up the others' answers, three interviewees do not distinguish between the positive analytical approach of CT and the purely negative nature of destructive criticism. Thus, their definitions are so far from the one that generally agreed upon.

Another interviewee defines CT as an innate skill; a point that is overtly disagreed with. CT is a learnable skill; a basic academic competency (Fisher, 2001). Like reading and writing, every learner is required to work towards increasing it.

The sense that two other interviewees have in mind recognizes the importance of CT peculiarly in the course of reading. According to them, CT and reading are inseparable from each other because the former plays a vital role in forming the groundwork of the latter's development. The reason behind this limited insight is simply brought by the actual access of students to some influential instruction on the application of CT in the 'Reading Techniques' subject. Despite this fact, these interviewees, as the others, ostensibly reported an inaccurate definition of CT. To be precise, they seem unable to integrate or even report on what they have learned about CT.

The following list comprises a selection of definitions provided by the interviewees:

- ✓ *Critical thinking involves evaluating information from various perspectives.*
- ✓ *Critical thinking is about identifying where the author did not explain things well or clearly.*
- ✓ *Critical thinking is the capacity to solve problems by following specific steps.*
- ✓ *Critical thinking is to evaluate someone or something by providing comments.*

- ✓ *Critical thinking is a method for analyzing written work with the help of experts.*
- ✓ *Critical thinking is the objective analysis of ideas.*

To cut through the confusion and uncertainty that surrounds the term in her mind, one of the interviewees declared her complete ignorance of the meaning of the concept.

We close this question acknowledging that though the notion of CT seems prominent in education, still there is so much uncertainty and ambiguity about it among students. This suggests that there might be a gap in how CT is taught or understood in educational setting, which could require further clarification and improvement in pedagogical approaches. Moreover, it highlights that most teachers may not be fully aware of the concept of CT, potentially make it even more difficult to promote it among students.

**Question 2:** *Are you aware of the components of critical thinking? If yes, what are they?*

Understanding CT obliges recognizing its ability to break down thinking into its essential components (Paul & Elder, 2008). Therefore, through this question, the researcher intends to know whether participants are aware of the constituent parts of their thinking.

Results reveal that more than half of the respondents (9 out of 15) agreed that CT has components. With the exception of two interviewees who seemed helpless to prove their claim, varied lists of components were provided. One respondent mentioned 'logic', 'perception', 'feelings', 'argument', 'solution' and 'problem solving' as the components of CT. Another interviewee mentioned, in addition to the element of 'perception', three other different ones. These are 'assumption', 'analysis' and 'observation'. The two last components were also mentioned by four other interviewees, yet with other suggested components such as 'communication' and 'knowledge'. A further interviewee presented a completely different set of components. According to her, the components of CT are 'explication', 'rules' and 'justification'. Concerning the six remaining interviewees, 4 of them believe that CT has no components. The two others

avoided to take any stand. All in all, respondents' answers are spur-of-the-moment, which give the impression of having no assigned function in their minds. Once again, this emphasizes a possible lack in the instruction of CT.

**Question 3: *If you were asked to analyze thinking, how would you do so?***

Question 3 inquires about the way participants analyze thinking if they are asked to do so. One key feature of being a critical thinker is to be skilled in analytic thinking (Paul & Elder, 2008). Accordingly, the aim of this question is to check the ability of participants to analyze the reasoning embedded in a particular thinking. In other words, it aims to assess the interviewee's capacity to identify the purpose behind a given reasoning, and the key information and concepts used. It also explores their ability to interpret ideas, and draw conclusions.

In describing their way of analyzing thinking, the majority of interviewees (9 out of fifteen) reported that they carefully read or listen to a certain product of reasoning to understand it first well enough. Then, they move on to distill the main ideas, and to remove the superfluous information. As a final step, they succinctly summed it up. One of the interviewees responded to the question by stating that CT is hard to analyze. However, her final say on the issue indicates her certainty of the existence of various ways to fulfill such practice. Two other students stated that they analyze a given work (thinking) by asking themselves the question 'what does the author intend to say?' The last three students stated that they have no idea regarding how to analyze thinking. The following list contains some interviewee's responses, explaining how they would analyze thinking if requested:

- ✓ *If I tasked with analyze thinking, I would first read the content attentively, and then identify the ideas which need further information.*
- ✓ *If I asked to analyze thinking, I would start by questioning what the author attempting to convey.*

- ✓ *If I am asked how to analyze thinking, I would read the text carefully, underline the main ideas, and observe how they are expressed.*

**Question 4: *What standards do you use when you evaluate someone's thinking?***

Question 4 enquires about the standards students employ to assess one's thinking. Through this question, the researcher seeks to know whether the target students are knowledgeable of the intellectual standards important to skilled reasoning.

Three interviewees state that they evaluate one's thinking based on the standard of 'clarity'. One among these interviewees employs, in addition to 'clarity', the standards of 'accuracy', 'logic', and 'degree of importance'. A fourth interviewee applies the standard of 'knowledge'. Two other interviewees utilize 'coherence' and 'word choice' as a measure of evaluation. A seventh student interviewed contrasts 'objectivity' vs. 'subjectivity'. An eighth respondent adopts a 'questioning' standard. The remaining seven interviewees lack a clear method for evaluating thinking. On the whole, interviewees' responses reveal that they are unknowing of the intellectual standards necessary to evaluate one's thinking. The list below includes some interviewees' responses regarding the standards they employ when evaluating someone's thinking:

- ✓ *I evaluate others' thinking based on 'coherence' and 'word choice'.*
- ✓ *I evaluate the thinking of others by considering the factors: clarity, accuracy, logic and degree of importance.*
- ✓ *I employ the standards of objectivity and subjectivity in evaluating someone else's thinking.*
- ✓ *I rely on questioning in evaluating the thinking of others.*
- ✓ *I use the criteria of 'clarity' to evaluate the thinking of others.*

**Questions 4 & 5**

***What is your major subject and how does critical thinking apply to it?  
How does critical thinking apply to the study of writing?***

Question five seeks to investigate the interviewees' preferred subject and how they use CT to study that subject. On the other hand, question six gets more specific to ask respondents about their use of CT in the subject of Written Expression. Through these two questions, the researcher seeks to know whether respondents adopt the same broad set of CT skills to study all subjects (that is they perceive CT as domain-general) or they adhere to some subject-specific standards (domain-specific).

The results obtained from question 5 show that respondents are mostly of varied subject preferences. Six out of fifteen respondents prefer 'Oral Expression'. Four other respondents like better 'Phonetics'. Three favor 'Reading Techniques'. One respondent prefers 'Civilization', and another chooses 'Linguistics'. Regarding the way CT applies to their preferred subject, one respondent, among those who favor 'Phonetics', associated CT with the system of phonetic transcription. Another respondent, also favors 'Phonetics', claims that the subject of 'Phonetics' does not need CT since it has its own rules. Another respondent belonging to the category that prefers 'Reading Techniques' applies CT by merely summarizing and paraphrasing authors' work. The other interviewees (12 interviewees) provided no answer.

The results obtained from question 6 show that the majority of respondent (13 out of 15 respondents) did not know how to apply CT in the subject of written expression. The exception was two respondents. One of them declared that being critical thinker in writing entails writing with clear language, wise choice of words, correct grammar, and well organization of ideas. The other respondent claims that she applies CT in writing by "*thinking outside the box*". That is, as she explained, she tries to apply her imagination in order to be specific and different in developing a given topic. All in all, respondents' answers were not enough to recognize whether they perceive CT as domain-general or domain-specific.

**Question 7: *Could you give me some examples of your use of critical thinking in your life?***

Question seven asks students to provide some examples of their use of CT in their lives. The aim of this question is to explore whether students practice CT on the daily basis. More precisely, it aims to investigate whether respondents use CT to come to a conclusion about a problem or a decision that they may fall foul of.

Only four respondents stated that they use CT in their daily lives. One respondent uses CT to solve family problems. Another respondent uses it to deal with the others. The third respondent uses it to understand other's behaviors, and the fourth one uses it to organize her time. However, their answers remain abstract since they did not support them with physical referents. Regarding the eleven (11) respondents that remain, they did not provide answers to this question. Since the interview was distributed via email, this prevented the researcher from posing follow up questions. The list provided below, contains some interviewee responses regarding their use of CT in real-life situations in response to the question posed:

- ✓ *An example of my application of CT in my life is I use it to solve family problems.*
- ✓ *I use CT to understand the actions or behaviors of others.*
- ✓ *CT is so useful to manage my time.*
- ✓ *I use CT to deal with others.*

**Question 8: *To what extent have your teachers encouraged you to think critically?*** *Explain.*

Question eight aims to know whether EFL teachers encourage their students to think critically. More specifically, it seeks to uncover the efforts made by teachers to foster CT in their students.

The results obtained from this question reveal that, except for a single respondent who stated that there is no mention of CT by any of their teachers, all

other respondents recognized the influence of some or most of their instructors in promoting CT skills. Nevertheless, their teachers' contributions were merely in the form of advice and highlight of the importance of being a critical thinker. These findings indicate the absence of concrete efforts that should be made to activate and increase CT in students. The list below comprises some interviewees' responses about their teachers' encouragement of CT:

- ✓ *Most of our teachers advocate for CT by increasing our awareness of the importance of studying our lessons and by seeking clarification through asking questions.*
- ✓ *Not all of my teachers promote CT among us.*
- ✓ *Only certain teachers, specifically those instructing us 'Reading Techniques', 'Written Expression', and 'Speaking and Listening', consistently encourage us to develop our CT.*

### **3.2. Discussion**

Overall, the study highlights significant gaps in the education of target students concerning critical thinking skills. The absence of structured instruction and support, coupled with the demonstrated lack of proficiency in analytical and evaluative thinking, emphasizes the need for purposeful interventions. The efforts to enhance CT abilities, primarily consisting of advice rather than impactful actions, contribute to a limited overall improvement in students' CT skills. These results suggest a call for more comprehensive and practical strategies and structured educational approaches to effectively foster the desired skills among the target students.

### **4. CONCLUSION**

The principal aim of the present study is to find out whether the students under study are well educated in CT. To be considered so entails being skilled in analytic and evaluative thinking with a view to improving it. Moreover, it necessitates awareness of the most basic structures of thinking (the intellectual elements of thought) and the most basic intellectual standards for thinking (universal intellectual standards) (Paul & Elder, 2002). Mastery of these two

skills reveal the efforts undertaken by instructors to motivate and help their students to develop as critical thinkers.

The results display a lack of both defining CT and identifying its intellectual elements for analyzing thinking as well as the universal standards for evaluating it. Moreover, the respondents' incapacity to provide concrete examples to demonstrate how they analyze and evaluate thinking, and how they implement CT in their studies and lives points to a significant deficiency in essential CT skills, specifically in analyzing and assessing thinking. This, as previously mentioned, does not imply students' unwillingness to develop as critical thinkers, but rather reflects the absence of a systematic education in CT.

In a nutshell, in academic programs at all levels, CT is rarely consistently fostered. The institutions that are most adept at applying CT skills are those run by people who understand CT themselves and support and fund ongoing professional development programs for their staff to improve their CT skills (Paul & Elder, 2007). Accordingly, a degree of challenge is required on the part of instructors. They have to make their best to transform their classrooms into communities of good thinkers; they are required to foster in their students the skills of mind compulsory for thinking efficiently in an increasingly complex world. To realize this, they have no way, but to understand the foundation of CT; the skills that lay the groundwork for understanding and fostering CT competencies.

In light of the challenges that stem from students' passive thinking, key suggestions might be proposed. The first recommendation involves the integration of CT into university curricula. This will help in fostering capabilities in analytical and evaluative thinking. Consequently, it enhances both academic performance and the ability to navigate life's complexities. Secondly, instructors have to play a crucial role in making CT a fundamental value in classrooms. By modeling critical and reflective thinking and encouraging deep engagement with thought-provoking questions, the focus will shift from rote learning to cultivating profound understanding and reasoning skills. This will empower individuals to think critically, solve problems creatively, and adapt to new situations. Thirdly, emphasis should be extended beyond academia. Students must be self-aware of their thinking processes, values, and ethics, acknowledging their influence on

decision-making. This self-awareness empowers them to apply CT beyond the classroom, ensuring its relevance in diverse real-life scenarios. Lastly, instilling habits of mind that transcend specific contexts is essential. By fostering transferable CT skills, individuals can seamlessly apply them across unrelated situations, enhancing the depth and meaningfulness of their learning experiences. Ultimately, these steps—curriculum integration, value instillation, self-awareness cultivation, and habit formation—collectively contribute to fostering a society of responsive thinkers capable of applying CT in various facets of life.

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