The Role of Critical Thinking in ImprovingEnglish as a Foreign Language Students' Academic Writing Skills

BENDJERID Nassima University of Abderrahmane Mira, Bejaia (Algeria)

nassima.bendjerid@gmail.com

Abstract

Today's challenging world demands the creation of a collaborative social network. For this social network to develop professionally, it is imperative to engage in reflective and independent thinking. Practicing critical thinking can be seen in education, politics, problem-solving, decision-making, and so on. However, as education is the cornerstone and the key to the growth of nations, it is imperative to emphasize the significance of critical thinking in the educational sphere. Students of English as foreign language may need to use it as a reliable source to enhance their academic writing because it is often lacking in their works. Therefore, the objective of this research is to delineate the different concepts through teachers' and students' perspectives on critical thinking. This is to raise students' awareness of its significance for their academic writing. To accomplish this, a mixed methodology has been employed in the department of English at BelhadjBouchaib University ofAinTemouchent, based upon teacher interviews and student questionnaires. The findings reveal that critical thinking is a key component of students' academic writing development. As a result, this research will contribute insights into the complementary relationship between critical thinking skills and academic writing for the improvement and enforcement of our teaching methodologies.

Keywords: awareness, education, effective strategies, critical thinking, teaching methodology

ملخص

يتطلب عالم اليوم المليء بالتحديات إنشاء شبكة اجتماعية تعاونية. و لكي تتطور هذه الشبكة الاجتماعية على نحو مهني، لا بد من الانخراط في تفكير تأملي ومستقل. إن ممارسة التفكير النقدي من الممكن أن ترى في التعليم، والسياسة، وحل المشاكل، وصنع القرار، وما إلى ذلك. ولكن، بما أن التعليم هو أساس ومفتاح نمو الأمم، فمن الضروري التأكيد على أهمية التفكير النقدي في المجال التعليمي. قد يحتاج طلاباللغة الإنجليزية كلغة أجنبية إلى استخدامها كمصدر موثوق لتعزيز كتاباتهم الأكاديمية لأنها غالبا ما تفتقر إليها كتاباتهم. لذلك، فإن الهدف من هذا البحث هو تحديد المفاهيم المختلفة من خلال وجهات نظر المدرسين والطلاب بشأن التفكير النقدي. وذلك لرفع وعي الطلاب حول أهميته في كتاباتهم الأكاديمية. ولتحقيق ذلك، تم اعتماد منهجية مختلطة في قسم اللغة الإنجليزية في جامعة بلحاج بوشعيب، عين تموشنت، استنادا إلى مقابلات المعلمين واستبيانات الطلاب. تكشف النتائج على أن التفكير النقدي هو عنصر أساسي في تطور الكتابة الأكاديمية للطلاب. لهذا، فإن هذا البحث سوف يساهم في تكوين مفاهيم حول العلاقة التكاملية بين مهارات التفكير النقدي والكتابة الأكاديمية من أجل تحسين وتعزيز منهجيات التعليم لدينا.

الكلمات المفتاحية:توعية, تعليم, استراتيجياتفعالة, تفكير نقدى, منهجية التدريس.

24

^{*}Corresponding author's email: nassima.bendjerid@gmail.com

1.Introduction

With the rapid growth of technology and the changes it brings, university students are obliged to adapt to these changes by applying the learning strategies and skills they learned for future employment. Language is the basic element of any learning context because it is with which we perceive information and share knowledge about different issues. Hence, students with low language proficiency risk having an improper understanding of information, and thus critical engagement. Proper understanding of information results in clear thinking. Therefore, many educational researchers have focused on the importance of critical thinking and how it can be improved. In higher education, teachers' main focus is developing students' academic writingto meet their futureacademic needsthrough providing them with opportunities to dive into concepts to find solutions to life issues, so that they understand the world (Karbalaei, 2012).

Besides, teaching students how to think critically is required to improve their academic writing skills. Over the last two decades, critical thinking has become an imperative educational goal because students need this intellectual vigor (cognitive skill) (Rahmat, Aripin, Lin, Whanchit,&khairuddin, 2020), to fulfill their educational and professional requirements. Since critical thinking plays a central role in logical thinking, decision-making, and problem-solving, it is highly needed in higher education. Therefore, educators believe that this competence is of paramount importance to be acquired specifically for writing academic papers such as dissertations, and articles.

The current study investigates the importance of raising students' awareness of the crucial role that critical thinking plays in academic writing development. It aims to provide answers to the following question: Is critical thinking the key component for the betterment of academic writing? In the attempt to answer the former question, the researcher hypothesizes that critical thinking is the main strategy to improve students' academic writing in particular and learning skills in general.

2. Literature Review

Research on the correlationbetween critical thinking and writing gained much attention from scholars such as Tahira and Haider (2019), Rahmat, Aripin, Lin, Whanchit, and Khairuddin (2020), Khairuddin, Ismayatim, Ismail, Rahmat, and Zamri (2021), where they explored several areas related to this intertwined relationship. Moreover, with the four language skills, critical thinking is another important skill that should be learned and developed since effective communication is what characterizes

a critical thinker (Paul & Elder, 2008). In other words, critical thinking can be measured through the involvement of speaking and writing competencies because it is most required in spoken and written communication.

In this line, a study based onKorean English-major students' responses and interviews over asemester conversation course, showed that students became actively engaged in talking about specific topics through adopting teachers' questioning as a useful method for students' development of their criticalthinking skills (DeWaelsche, 2015). Additionally, McKinley (2013)reported that the appropriate way to train students in thinking critically is argument-based writing. Similar to this study, Liu and Stapleton (2014) claimed that Chinese college students developed their critical thinking skills through learning how to analyze and evaluate their opinions in counterargument in the academic writing task, which stands as evidence for Andrews (1995) perspective on regarding argument as the reflection of higher education students' critical thinking. Since the written discourse is based on arguments, Bonnett (2001) emphasized it later stating that: "your essay is your argument; everything else makes sense because of it" (pp. 50-51). This postulates that critical thinking skill is the fundamental of thoughts expression, be it in written or spoken discourse.

2.1 Conceptions on Critical Thinking

The termcritical thinking has been defined in several different ways because it is a controversial and debatable concept. In broad terms, critical thinking is a cognitive skill in which one's cognition possesses the ability to analyzeand evaluate a set of ideas in such an active, organized way to examine one's thinking and the thinking of others. Starting with the psychologist Sternberg (1986) critical thinking is "the mental processes, strategies, and representations people use to solve problems, make decisions, and learn new concepts"(p.3). Similarly, Corttrell (2005) agreed on the fact that critical thinking is an activity that is related to our cognition, which means that our mental abilities process the thinking activity in a way that allows people to become more problem-solvers, decision-makers, and precise in the way they perceive things.

Indeed, Elder and Paul (1994) described critical thinking as the individual's ability to control the way they think, in which they assert that "critical thinking is best understood as the ability of thinkers to take charge of their own thinking" (p.34). Hence, the fact that we raise a particular question on a particular issue, and look for an answer that isbased on shreds of evidence that might confirm or disconfirm the idea that we had on that issue; we are engaged in the thinking process. However, thinking in other terms is a matter of recognizing

the negative and positive side of the issue, then treating it with an open mind so that the appropriate solution is recognized. Willingham (2007) confirmed this claim in which he noted that critical thinking is about "seeing both sides of an issue, being open to new evidence that disconfirms your ideas, reasoning dispassionately, demanding that claims be backed by evidence, deducing and inferring conclusions from available facts, solving problems, and so forth" (p.8). Moreover, the process of critical thinking happens systematically in which our conscious mind processes the information, through evaluating and analyzing it to seek out its relevance, and logic. Then, decide whether to accept or refuse that information so that we can share it with people around us.

Unlike the cognitive psychological perspective, other definitions of critical thinking have emerged from a philosophical perspective. Many philosophers view critical thinking as a way to decide what to believe and what not to believe. As it is based on a reasoned process, a critical thinker relies on reasons to reach reasoned conclusions, and avoid any confusion. Thus, according to Ennis (1985) "critical thinking is reflective and reasonable thinking that is focused on deciding what to do or believe" (p. 45). This idea was later supported by Facione (1990) and Norris and Ennis (1989), who also stated that a critical thinker can decide to believe or act based on reason, to harmonize the elements of critical thinking. In addition, critical thinkers are regarded as sceptical and rational because firstly, they are logical rather than emotional, and secondly, they question everything before making snap judgments.

Similarly, McPeck (1981) noted that critical thinking is "the propensity and skill to engage in an activity with reflective scepticism" (p. 8). In addition, he viewed a critical thinker as someone who confronts a situation in a doubtful way of thinking. Furthermore, when it comes to university context, critical thinking is also defined as mental abilities and skills such as selection, evaluation, analysis, reflection, questioning, inference, and judgment (Tapper, 2004). When we apply critical thinking in writing, these abilities are more expressed in the argumentative type of writing, because they are based on the argument's construction such as essays, dissertations, articles, etc. Both Andrews (1995) and Scott (2000) claimed that critical thinking in higher education can be seen as primary in an argument. On the other hand, critical thinking is an intrinsic part of writing (i.e., the core ofwriting) where the writer's way of thinking about a certain topic can be reflected in his writings. However, due to the lack of criticality in higher education particularly in academic writing, teachers believe that critical thinking skill represents an important cognitive skill to be learned. Therefore, implementing critical thinking in learning is of paramount importance.

2.2 The Salient Role of Critical Thinking in Higher Education

Educators have long been aware of the importance of critical thinking skills as an outcome of students learning, the reason for which studies on how to assess and develop students' critical thinking have been the focus of many researchers. The main goal of many professionals in higher education is to prepare students for real-life situations. Besides, employers often seek employees who can apply their critical thinking abilities to come up with creative solutions to solve problems in their workplace (Tapper, 2004). Elander, Harrington, Norton, Robinson, and Reddy (2006) believed that critical thinking skills are not limited to other areas of our lives only; they can also transform individuals from passive recipients of knowledge into active participants in society. Likewise, it helps people to acquire knowledge and strengthen one's arguments.

Critical thinking is important for two main reasons. One of the reasons is logical self-defence. According to Kevin (2014),self-defence can be depicted through the analogy of martial arts, in which he claimed that people sign up for martial arts for distinct reasons. However, learning how to defend one's self against physical attacks is what proves to be the main reason why many people take martial arts classes for. Indeed, critical thinking is a weapon to defend our standpoints through the use of strong arguments, particularly in situations where power is the dominantfactor for higher positions, such as in politics. Politicians often attempt to exercise power over others by influencing their beliefs and values. For this, awareness of critical thinking principles helps sensitize these influences. Therefore, when educators raise students' awareness of the importance of critical thinking, they are implicitly teaching them self-defence, i.e., how to construct valid reasons to convince others, not to impose their values but to defend their ideas, where they will become effective persuaders in different situations.

Consequently, Kevin viewed personal empowerment as the second reason for which critical thinking is important. Empowerment means having the ability to think logically, to convince others to accept the conclusion (Kevin, 2014). Manyresearchers stated that critical thinking related to logic, and being logical when stating an argument is a necessity for students to improve their writing. Thus, it is needless to say that critical thinking comes with many benefits. Thinking critically means that your brain engages in questioning the clarity of your thoughts. Moreover, if students are aware of the importance of critical thinking, which is one of the strategies they should master, developing good writing skills can be enhanced effectively. Besides, critical thinking helps them structure, organize their thinking, and

reinforce the body of their written discourse. Davidson (1998) argued that it is the teacher's responsibility to prepare students to meet the requirements of academic writing in higher education, and if the university expects critical thinking skills to be displayed, then they need to be made explicit and taught.

3. Methods

Research Design and Research Methods

This study is investigated through the use of qualitative and quantitative data gathering, in which the findings suggest that critical thinking is a skill that is highly required in academic writing in higher education. The data were primarily obtained from the questionnaire and interview that we submitted to the students and teachers at BelhadjBouchaib University of AinTemouchent, Algeria. The research was conducted during quarantine due to the Covid-19 pandemic, where participants were obliged to work and study from home, the reason for which this research was conducted online.

Participants

The sample consisted of thirty (30) students enrolled in the linguistics stream. The students have been chosen on the fact that they study critical thinking subject matter at their master1 level. Additionally, five teachers of English have been chosen because we think that they can provide us with the appropriate information we are seeking for Besides, the majority of them taught written expression as a subject matter at the department of English.

Research Instruments

The researcher chooses a questionnaire and an interview as data-gathering instruments for their effectiveness. For this, an online survey and a structured interview were administered to the students and teachers of English. The thirty respondents were asked to answer a questionnaire with a total of nine questions. The questions of the survey were initially developed based on a review of relevant literature, where they were focused on drawing outparticipants' perceptions and conceptions on the significance of critical thinking as an effective skill in academic writing enhancement in particular and education in general. The questionnaire was structured in nature so that it allows the respondents to answer in the bestway possible. Furthermore, it consists of two main parts, the general questions part and the topic-specific part to elicit data as much as possible from the participants. In addition, the questionnaire also had five closed-ended questions aimed to confirm the problem existing, and whether the studentsunderstandthe concept of critical thinkingafter taughtthissubjectmatter. The other four open-ended questions are tosee how students regard the importance of critical thinking.

As for the structured interview, we managed to interview only one teacher face-to-face at the university before quarantine; whereas, the remaining interviews were sent to the interviewees via e-mail, because of their availability there at that period. The interview consists of nine open-ended questions. The four first ones were general; however, the remaining ones were specific to the topic of investigation. In addition to this, the questions were predetermined in which the participants answered in their own words, and were structured to cover the teachers' perceptions and perspectives on the importance of critical thinking in enhancing academic writing.

Research Procedures

The chosen research method for this study is a combination of both qualitative and quantitative data gathering tools because of the nature of the research. The study at hand was conducted online because of the hard circumstances our universities are suffering from during this sensitive health crisis. Due to the availability of the participants online during quarantine, the researcher was obliged to submit an online questionnaire using a website called *surveymonkey.com*to be able to collect adequate data in a short time. Moreover, the online questionnaire allows the researcher to easily access the results obtained. The questions were standardized and allowed the students to give answers according to the preceding questions. Additionally, the author interviewed the teachers who took part in the study online as well.

4. Results

Questionnaire

This study consists of two types of data collection instruments. The first type is related to the participants' understanding and awareness of the importance of critical thinking skills. The following bar graph summarizes the main results.

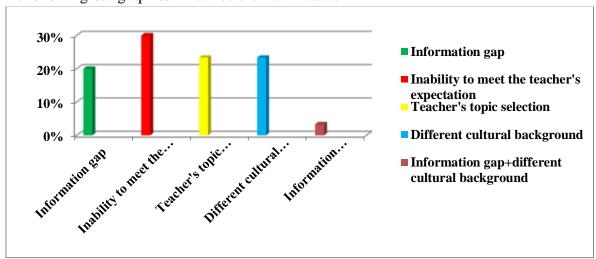


Figure 1. Difficulties preventing EFL students' academic writing achievement

This bar graph aims at exposing the obstacles behind students' lack of proficiency in writing academic papers, which is the reason for asking questions one and two where the majority of the students (i.e., 80% which represents 24 students) said that they have difficulties in academic writing. Results from this bar graph show that the majority (30%) confessed that the inability to meet the teacher's expectation is what prevents them from expressing criticality in

academic writing. Whereas, the minority (20%) said that the information gap is their obstacle. In addition, seven students (23.33%) claimed that it is difficult for them when the teacher suggests a topic and asks them to develop it. On the other hand, seven other students (23.33%) stated that it is hard for them to develop a topic in English because they do not share the same cultural backgrounds as natives where this distinction makes it difficult for them to express their ideas appropriately. However, only one student (3.33%) claimed that both information gap and different cultural backgrounds are the two criteria that stand like a wall in his academic writing development.

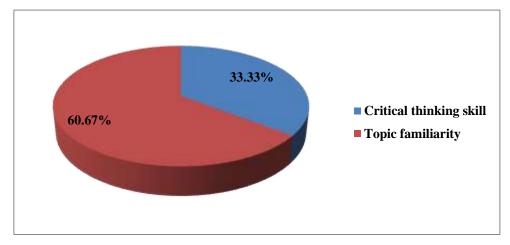


Figure 2. Strategies developing EFL students' academic writing skills

This pie chart aims at showing the strategy that would best develop academic writing skills from the students' perspective. It indicates that twenty students (60.67%) whom we choose for the study claimed that topic familiarity is what helps them better write in English, unlike the critical thinking skill usage where only ten students (33.33%) view it as a reference for their written production development.

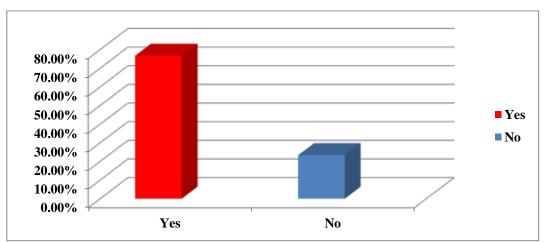


Figure 3. The impact of critical thinking module in students' academic writing improvement

This bar graph represents the role of the critical thinking module in improving students' academic writing. It shows that twenty-three (76.67%) students stated that their academic writing improved after studying the critical thinking module, whereas only seven (7) of them (23.33%) said the other way around for unreported reasons.

The second type of data collection tool is the interview that was conducted to seek distinctive insights from the teachers of English on the importance of critical thinking in academic writing improvement. Hence, the teachers share a common understanding of the concept of critical thinking, the reason for which questions one, two, and three have been asked. According to the answers of the majority of them (i.e., four teachers), critical thinking is a process of thinking deeply about distinctive life issues through exploring, analyzing, evaluating, etc. On the other hand, the other teacher said:

Identifying and approaching specific subjects with critical thinking refers to how a learner approaches an analyzing spirit or idea not to judge but simply to comprehend.

Furthermore, specific questions are asked to see the importance of critical writing from the teachers' perspective. Participants in questions five and six noted that the connection between critical thinking and writing is complementary, where writing can be developed through possessing critical thinking qualities. In addition to this, two teachers said that students' criticality in writing is manifested through their ideas and opinions on certain topics; while some others do not have this characteristic which is reflected in their writing style. However, the other teachers claimed that even though some students' level is limited, elements of deep thinking can be found in their academic writing.

Results taken from question eight, view that the majority of the interviewees regard critical thinking as the main strategy for good writing, in which they consider it as the basis of an analytical mind, as they reported that it helps learners consider, compare, select and coherently organize their ideas. On the other hand, two interviewees said that critical thinking is one way to develop writing in addition to the other ways.

5. Discussion

Even though students who took part in this study claimed that they have difficulties in writing and that getting familiar with a topic on which they are supposed to write about is a good way to improve their writing skills, it is noticeable that they are aware of the significance of critical thinking skills in developing their writing. In fact, according to participants' responses to the proceeding question (i.e. question four) which aims at determining the characteristics of efficient writing in their eyes, all of them agreed on many different specific internal features such as vocabulary usage, unity, coherence, and cohesion, the ideas provided, their simplicity and clarity, the absence of grammatical mistakes, etc. They all make a good piece of writing, in addition to the form which is usually the first thing that attracts the reader. This indicates that they are referring to the features of critical thinking skills which should be taken into consideration in writing an academic paper.

However, topic familiarity can be good as a starting point in writing which has been given as evidence from one of the teachers we interviewed. Hence, thisshows that thesestudents are conscious of the critical thinking aspects and characteristics. A study investigated by Indah (2017) on the relationship among critical thinking, writing performance, and topic familiarity seem to cover this claim, where results from her study indicate that topic familiarity contributes directly to students' critical thinking skills when they initiate the topic

themselves; as it can influence their written performances. This stands as evidence for what has been already mentioned in the literature review.

In addition to this vein, Tahira and Haider (2019) claimed, that as fertile soil for critical thinking development, adequate subject knowledge is necessary. Moreover, students positively reported that the critical thinking subject matter helps them improve writing for several reasons such asideas and view points' consideration, developing ationality, having the opportunity to view what is beyond the picture (the issue itself) to detect the real meaning behind certain things, providing pieces of evidence and facts to convince the readers (See questions five, six, and seven in appendix B). This reveals that the qualities of critical thinking are present through the students' varied responses to the open-ended questions. Furthermore, results from the table show that students of master's degree developed a good understanding of the concept of critical thinking, and are aware of its importance in developing academic writing after being taught this subject. This can be primarily deducted from their responses to the last question in the questionnaire (See question 9 in appendix A), which aims at seeking the importance of critical thinking from the students' perspective.

Indeed, most of the participants have agreed on the fact that the importance of critical thinking can be seen at the micro and macro levels. Thus, it helps them construct valid arguments, particularly when writing a persuasive (argumentative) type of writing, where the study conducted by McKinley (2013) supported this view. They also said that it encourages them to be autonomous learners in which their academic level will be promoted. Likewise, it develops the human mind, changes his thinking about stereotypes and false generalizations that were engraved in his mindset; it encourages open-mindedness, objectivity, honesty, and rationality; as it boosts creativity. It can also helpthem find solutions to real problems, come up with quick decisions, make choices, etc.

In addition to the students' opinions about the importance of critical thinking, the teachers we interviewed also share a common understanding, where they think that students possessing this valuable skill would develop knowledge and awareness of certain phenomena; as it is important in many disciplines not only for academic purposes. Since all of the interviewees regard critical thinking as essential for students' academic writing production in particular, they recommend that it should be implemented at an advanced level (i.e., before master's degree), due to its effect on their learning outcome development in general. We can also deduce from the interview's answers that the teachers are doing their best to help their students become better writers, which means that they are attempting to contribute in creating future intellectuals who can serve the society with their critical mind; as it is their responsibility to engage the students in critical thinking through explicit intention and practice (Davidson, 1998).

6. Pedagogical Implications

Writing is an importantskill that should be given much attention andeffort from both teachersand students. It appears to be the most difficult task for EFL students to achieve because it requires one's intellectual ability and clear thinking. Writing is a very challengingtask in learning a foreign language because it is based on appropriate and strategic language usage. In general, writing is a process, and so is teaching it. In this,Oshima and Hogue (1997, p. 2) noted that: "writing is never a one-step action; it is a process that has several steps". This means that writing is a process that is based on ordered steps, and each step is regarded as significant.

Therefore, William (2001, p. 4) viewed that: "rewriting is the essence of writing". He believed that the attribute of aliveness determines good writing, which draws the reader to continue reading. Many writers claim that the first thing that captivates the attention of the reader is the form of the writing. The format is very important to prepare the reader for what he is going to read. When teaching writing, most educators emphasize the importance of the outline. Planning can help the student gets in one direction. According to Oshima and Hogue (1997), the first step in the writing process is prewriting. In this stage, you gather information and ideas and plan how to organize them. After you organize your ideas and select the relevant ones, you start writing the first draft.

The next step in the writing process is proofreading. The reason for it is detecting errors to be corrected. When editing, you are supposed to correct the grammar mistakes, spelling mistakes if any, check the sentence structure, look for synonyms, etc. Rereading what has already been written gives the chance to the writer to examine his ideas. Sometimes, we tend to write sentences that do not cover the meaning that we want to convey, and we only realize the linkage and connection between the ideas when we read them out loud. Therefore, proofreading helps you realize your mistakes that might be written unconsciously. For this, to be conscious of our critical thinking while writing is important. Consequently, critical thinking is an effective way for academic writing improvement.

Additionally, when writing we should take into consideration the readers and what they need to know. When knowing to whom we are writing, we should vary the style and content according to what the readers know and what they need to know. Hence, knowing your readers helps you decide what information is relevant, and what supporting details will be necessary for them. Moreover, most students desire to become effective writers; however, they often do not attempt to get feedback about their writing before submitting it. Having feedback from someone professional helps students to get the appropriate instructions that they need to know for effective writing. Hence, the more they ask for feedback, the more theyfinderrors, and the more they practice writing. For this, practising is anothervital step inthewriting process. **Practicekeeps** students' cognition action. into As result, extensive writing enhances critical thinking.

7. Conclusion

Many studies have proved that writing enhances critical thinking and the other way around. This study has proved that critical thinking is the soul of writing for many reasons, including its major role in helping students use their critical thinking skills to evaluate their ideas and the ideas of others. Indeed, the relationship between critical thinking and academic writing is a two-way street. This means that critical thinking helps promote academic writing effectiveness, i.e., the more students practise writing, the more their thinking process is engaged. In addition to the importance of critical thinking skills, teachers emphasized that extensive reading is a useful procedure for academic writing enhancement.

Thus in the light of the results obtained, we can postulate that critical thinking is an essential strategy to improve students' academic writing in particular and learning skills in general. Results also show that students developed a sense of awareness after being taught the critical thinking subject matter. Hence, critical thinking can help individuals to consider the credibility of the information source, recognize propaganda and not fall prey to it, and examine others' trustfulness. Since this study attempts to delineate the immense role of critical thinking in academic writing promotion through the students' and teachers' perspectives and conceptions, our participants suggested its implementation in all the disciplines to enhance the quality of the teaching methodology.

References

- Andrews, R. (1995). Teaching and learning argument. London, NY: Cassell.
- Bonnett, A. (2001). How to Argue: a student's guide. Harlow: Pearson Education.
- Corttrell, S. (2005). Critical thinking-developing effective analysis and argument. New York: Palgrave Macmillan.
- Davidson, B.W. (1998). 'Comments on Dwight Atkinson's "A Critical Approach to Critical Thinking in TESOL": A Case for Critical Thinking in the English Language Classroom'. *TESOL Quarterly*, 32(1), 119-123. http://www.jstor.org/stable/3587906
- DeWaelsche, S. A. (2015). Critical thinking, questioning, and student engagement in Korean university English courses. *Linguistics and Education*, *32*(Part B), 131-147.https://doi.org/10.1016/j.linged.2015.10.003
- Elander, J., Harrington, K., Norton, L., Robinson, H., & Reddy, P. (2006). Complex skills and academic writing: a review of evidence about the types of learning required to meet core assessment criteria. *Assessment and Evaluation in Higher Education*, 31(1), 71-90. https://doi.org/10.1080/02602930500262379
- Elder, L., & Paul, R. (1994). Critical thinking: Why we must transform our teaching. *Journal of Developmental Education*, 18(1), 34-35. https://www.jstor.org/stable/i40105115
- Ennis, R.H. (1985). A logical basis for measuring critical thinking skills. *Educational Leadership*, 43(2), 44-48.
- Facione, P. A. (1990). Critical thinking: A statement of expert consensus for purposes of educational assessment and instruction. Millbrae, CA: The California Academic Press.
- Indah, R. (2017). Critical Thinking, Writing Performance and Topic Familiarity of Indonesian EFL Learners. *Journal of Language Teaching and Research*, 8(2), 229-236. DOI:10.17507/jltr.0802.04
- Khairuddin, Z., Ismayatim, W. F., Ismail, O., Rahmat, N. H., &Zamri, N. A. (2021). Exploring critical thinking in writing. *Advances in Social Science, Education and Humanities Research*, 626,67-72. http://doi:10.2991/assehr.k.211227.012
- Karbalaei, A. (2012). CRITICAL THINKING AND ACADEMIC ACHIEVEMENT. *Íkala, Revista de Lenguaje y Cultura, 17*(2), 121-128. from http://www.scielo.org.co/scielo.php?script=sci_arttext&pid=S0123-34322012000200001&lng=en&tlng=en.
- Kevin, d. (2014). *Critical Thinker Academy*. Retrieved from https://criticalthinkeracademy.com/courses/what-is-critical-thinking/lectures/51609
- Liu, F., & Stapleton, P. (2014). Counter argumentation and the cultivation of critical thinking in argumentative writing: Investigating washback from a high-stakes test. *System*, *45*(1), 117-128. DOI:10.1016/j.system.2014.05.005
- McKinley, J. (2013). Displaying critical thinking in EFL academic writing: A discussion of Japanese to English contrastive rhetoric. *RELC Journal*, 44(2), 195-208. https://doi.org/10.1177/0033688213488386
- McPeck (1981). Critical Thinking in Education. New York: St. Martin's Press.
- Norris, S.,&Ennis, R. (1989). *Evaluating critical thinking*. Pacific Grove, CA: ThinkingPress and Software.

- Oshima.A.,&Hogue. A. (1997).*Introduction to academic writing.* 2nd ed. White Plains, NY: Longman.
- Paul, R., & Elder, L. (2008). Critical thinking: The nuts and bolts of education. *Optometric Education*, 33(3), 88-91.
- Rahmat, N. H., Aripin, N., Lin, N. M., Whanchit, W., &Khairuddin, Z. (2020). Exploring the Connection between Critical Thinking Skills and Academic Writing. *International Journal of Asian Social Science*, 10(2), 118–128. https://doi.org/10.18488/journal.1.2020.102.118.128
- Scott, M. (2000). Student, critic, and literary text: a discussion of 'critical thinking' in a student essay. *Teaching in Higher Education*, 5(3), 277-288. DOI:10.1080/713699140
- Sternberg, R. J. (1986). *Critical thinking: Its nature, measurement, and improvement.*National Institute of Education. Washington, DC.
- Tahira, M.,&Haider, G. (2019). The role of critical thinking in academic writing: An investigation of EFL students' perceptions and writing experiences. *International Online Journal of Primary Education*, 8(1), 1-30. http://www.iojpe.org/
- Tapper, J. (2004). Student perceptions of how critical thinking is embedded in a degree program. *Higher Education Research and Development*, 23(2), 199-222. https://doi.org/10.1080/0729436042000206663
- William, Z. (2001). On writing well. The classic guide to writing nonfiction. New York, NY: Harper Collins.
- Willingham, D. T. (2007). Critical thinking: Why is it so hard to teach? *American Educator*, 31, 8–19. Available at http://www.aft.org/sites/default/files/periodicals/Crit Thinking.pdf

Appendices

Appendix A

Students' Questionnaire

Dear students,
This questionnaire is intended to collect data on the role of critical thinking in developing
academic writing skills. Hence, we would appreciate it if you could take the time to fill out this
questionnaire as we are doing some research into critical thinking. We value your opinion and
thank you in advance for your time and honesty.
1.Do you find difficulties in the academic writing process? Yes No
2. What are the difficulties that prevent you from improving your academic writing?
a. Information gap
b. Inability to meet the teacher's expectation
c. Teacher's topic selection
d. Different cultural background
Others
3. What is the strategy that would best help you develop goodacademic writing?
a. Critical thinking skill b. Topic familiarity
4. What help you distinguish between "efficient" and "non-efficient" academic writing?
5. Does clear thinking result in efficientacademic writing? Yes No
6. Is critical thinking essential for academic writing improvement? Yes No
7. Does the critical thinking module help you improve your academic writing?
Yes No

If yes, how?

8. Please specify the degree to which you agree or disagree with the following statements.

	strongly disagree	disagree	neither agree nor disagree	agree	strongly agree
Critical thinking is an abstract cognitive activity			disagree		
Critical thinking affects the choice of vocabulary					
Critical thinking affects sentence structure					
Critical thinking helps you construct valid arguments					
Critical thinking is a series of decisions made by the students when writing academic papers					
Critical thinking is synonymous with decision-making processes					
Critical thinking is a rational process					
Critical thinking enhances creativity					
Critical thinking is a vital skill in academic writing					
Critical thinking is a generalizable skill (can be applied to many different activities)					

9.	Where do y	ou think doe	es the import	tance of critic	cal thinking	lie?	
• • • • • • • • • • • •							

Appendix B

Teachers' Interview

Dear Teachers,

This interview aims to know your perceptions and perspectives on the significance of critical thinking in academic writing improvement. The purpose of the present study is to raise students' awareness of the importance of critical thinking to enhance their academic writing skills. We value your opinion and thank you in advance for your time and cooperation.

1.	From your perspective, what does it mean to be a critical thinker?
	Is critical thinking skill learned or acquired?
3.	It is said that "good writers are good thinkers". Do you agree with this statement? (Justify)
	Is it essential for first-year students to study the critical thinking module for their academic improvement? If yes, explain.
5.	What is the connection between critical thinking skills and academic writing?
	Do you think that students' critical mind is active when asked to write an essay/paragraph? If so, how do you know?
7.	How would you guide your students through the critical thinking process, if they lack the spirit of a critical thinker in their writing style?
	Is critical thinking skill considered as the main strategy for academic writing improvement? (Justify)
9.	In addition to the significance of critical thinking skills, what are the other strategies that you apply to develop your students' academic writing skills?