

On Critical Thinking and Academic Writing in EFL/ESL Contexts: A Literature Review

Hamamah¹, Sahiruddin², Esti Junining³
{hamamah@ub.ac.id¹, shrdn@ub.ac.id², esti@ub.ac.id³}

Universitas Brawijaya, Indonesia^{1,2,3}

Abstract. This study wants to gain insights into existing publications that looked into the effect of critical thinking in academic writing performance in EFL instructions in different cultural contexts. From the 2011-2021 publications in the databases of Google Scholar, ResearchGate, and ProQuest, 10 articles were reviewed to pass all the inclusion criteria. These articles show considerable homogeneity in manifesting the significance of CT to students' writing achievement as well as writing practices to analytical, statistical, and the establishment of ethical integrity, all of which are characteristics of CT cognitive skills. Despite differences in characteristics and methodologies, all of them assert that thinking critically and writing academically can both be improved together through various strategies and methods instead of the conventional/traditional teaching, as it is no coincidence that both skills have similar roles and functions which complement each other, in which they make use of statistical and factual interpretation to generate analytical, bias-free scientific papers. Implications addressed in these studies are homogenous that universities, tutors, and syllabus-makers are expected to review the guidelines, approach, or methods that can promote students' abilities in thinking critically and writing academically.

Keywords: Academic Writing, Critical Thinking, EFL/ESL Context

1 Introduction

Critical thinking (CT) is latterly often expected to be trained or assessed in the teaching of English as a Foreign Language (EFL) and English as a Second Language (ESL). As a series of cognitive skills, CT is developed to assist students of various traditions of discourse in many ways [1]. Mentions that several strategies can enhance students' CT skill, such as validating information, assessing factual data, and structuring as well as articulating reasoned arguments [2]. These exercises build on their ability to do statistical analysis, detect weaknesses and gaps in previous studies, claim their authorial voice through corroboration and refutation, establishing ethical integrity, as well as self-reflection on their own research [1][2]. Studies in diverse English as a Foreign Language and English as a Second Language context have been conducted to see the interrelation between CT and the academic use of English, for example in academic writing. To mention some contexts of the studies among others are Malaysia [3][4][5]. Writing is seen as the best outlet to refine students' CT especially when they have the opportunity to reflect on the previous discussion in class, or their personal contexts and experiences projected in scientific research [5]. It is not coincidence in itself that the fundamental skills in both writing and CT complement each other, as they make use of statistical and factual interpretation to generate analytical, bias-free papers [2][3][4][5]. In many ways, the

inextricable relationship of CT and academic writing can encourage and motivate students in exercising their argumentative objections, and enhance their self-confidence and control over their understanding of a particular topic or subject [6][7]. As students apply their critical thinking ability to their writing, they are able to collect relevant information and arguments on a particular chosen topic through scientific exploration, integrate their personal thoughts and values based on the selection of facts that have been proven or assumed through empirical research, which, in return, "...reconstruct knowledge in order to create [coherent] meaning" within their publications [8].

The fact that the academia still pays immense attention to finding the universal, integrated pedagogic strategy to instill critical thinking in learners' ability to write academically, and to boost learner's writing performance by exercising thinking critically, is empirically proven by the existence of pieces of research and experiments dedicated to solving this issue [3][4][5]. This issue becomes apparent and concerning when discovered in the assessment of EFL/ESL learners of countries that do not regard English as their official language, especially when the primary requirement of the writing or publication is English. These studies are also conducted with the objectives that the experiments (when the results are satisfactory) can be adapted and applied to a real classroom situation, as well as being the basis for educators and curriculum makers when designing syllabus or course materials [2]. While there are a vast number of publications that examine this issue, this review takes a look at 10 existing articles which study the effect of critical thinking in academic writing performance in EFL instructions in different cultural contexts. This review of literature was focused on answering two research questions: (1) How do the authors perceive the interplay between critical thinking and academic writing? and (2) Are there any differences in the results across the studies which measure the influence of critical thinking in EFL academic writing?

2 Research Method

The design of the study was a systematic review of research publications [9]. The researchers searched the publications in the databases of Google Scholar, ResearchGate, and ProQuest. In the beginning, the researchers used keywords critical thinking and academic writing to search for the articles that were published between 2011-2021. Various interrelationships between critical thinking and academic writing came up, such as: the teaching and learning of academic writing involving critical thinking, promoting critical thinking and academic writing skills in different fields of studies, improving critical thinking in academic writing, and the influence of critical thinking in academic writing. The researchers focused on the ones matched with the inclusion criteria:

1. The study has to relate to the interplay of CT to academic writing in EFL instructions.
2. The study has to be conducted in EFL/ESL context.
3. The study has to give information about the impact of CT to students' writing achievement or continuous practice of writing to enhancing CT.

From the 2011 – 2021 publications, 11 articles were found to match the inclusion criteria. However, if adhering to the first and second criteria, a study conducted for second language learners of Japanese should be excluded despite the correlation of the topic with this literature review in the third criteria. Ultimately, only 10 articles reviewed to pass all criteria. These project the interplay of CT and academic writing in many Asian countries which regard English as either their foreign or second language. It is also realized that there was substantial

homogeneity between the 10 articles, from the way the experiments were organized to the overall results, despite the differences in context and writing style adhered by the participants of each study (students).

3 Findings and Discussion

The focus of this literature review is to impart insights into the existing publications which explores the interplay of CT and academic writing in various EFL/ESL context. To answer the research questions, it is significant to project and find the homogeneity of the 10 articles into the characteristics of the study and the overall interpretation of each experiment. The framework of the findings in particular is adapted from the literature review conducted by Adib-Hajbaghery and Sharifi [10].

3.1 Characteristics of the Study

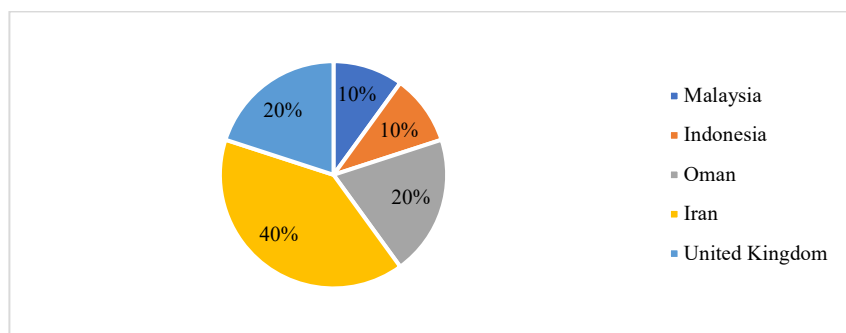


Fig. 1. Country of origin (where the studies are conducted)

Adhering to the inclusion criteria, all of the 10 studies are conducted in Asian contexts. 2 studies are from Southeast Asia, such as Malaysia [3][4][5][8], and the latter 4 articles are from Iran [11][12][13]. 2 studies were conducted at well-known colleges in London, UK, but the participants are EFL learners from China, Turkey [1] and Indonesia [14].

3.2 Methodology of the Study

Table 1. Designs and Types Of Essays Used in the Studies

Author(s)	Research Design	Type of Essay	Treatment on experimental group
Taghinezhad, Riasati [15]	Experimental	Argumentative	Collaborative learning
Rahmat, Aripin, Lin, Whanchit, Khairuddin [3]	Survey	-	-
Golpour [11]	Experimental	Descriptive and Argumentative	Experimental and control group are decided through a critical thinking questionnaire, no treatment on the former group

Author(s)	Research Design	Type of Essay	Treatment on experimental group
Memari [12]	Experimental	Cause-and-effect	Eight-step method
Hashemi, Berooznia, Mahjoobi [13]	Quasi-experimental	Argumentative	-
Tusino, Faridi, Saleh, Fitriati [4]	Experimental	Argumentative	Hybrid task-based teaching
AlKhoudary (2015)	Experimental	Argumentative	Writing Process method
Mehta and Al-Mahrouqi [5]	Quasi-experimental	Evaluation	-
Tahira, Haider [1]	Explanatory	-	-
Samanhudi and Linse [14]	Explanatory	-	-

Almost all of the previous studies use experimental research incorporating experimental group and control group. The experimental group always consists of a group of students regarded to possess high CT ability, or high critical thinkers as some studies would call it, and are usually exposed to advanced teaching and learning methods such as hybrid task-based teaching [4], collaborative learning, writing process method that integrates brainstorming, drafting, revising, and editing before the actual test [5] as well as “an eight-step method” to promote the ability to think critically [12] On the other hand, the control group which consists of low critical thinkers are often trained using traditional/conventional teaching and learning methods.

Only 4 studies are found to not employ experimental research. use in-depth interviews to obtain students’ perceptions on CT and academic writing. The interviews took place at King’s College London, UK with 2 Chinese and 1 Turkey student as the participants as well as interviewees. Another explanatory study that employs semi-structured interviews [14] observes the perspectives of Indonesian postgraduate students studying in a United Kingdom university and the difficulties of expressing their ideas and thoughts in their academic publications. in Iran do not necessarily involve experimental and control groups in testing their participants [13]. In their experiment asked all the participants to participate in the Persian version of ‘Watson-Glaser Critical Thinking Appraisal’ (CTA) and write a four-paragraph essay, which were then assessed using a valid rubric [5]. On the other hand, gave their participants copies of selected readings which included writings on tourism to prepare their students for a preliminary, self-reflection essay as well as evaluation essay based on the readings.

In the experimental studies, high critical thinking groups were tasked with writing different modes of essays, but most of these studies use argumentative essays as the benchmark to assess students’ writing achievement. However, descriptive essay [11], evaluation essay [5] and cause-and-effect essays [12] were also employed as they are deemed to promote CT and students’ writing skills.

3.3 Notable Findings of the Study

Table 2. Specific Methodology and Its Satisfactory Result

Author(s)	Methodology	Satisfactory Results
Taghinezhad, Riasati [15]	Experimental	Satisfactory

Author(s)	Methodology	Satisfactory Results
Rahmat, Aripin, Lin, Whanchit, Khairuddin [3]	Survey	Satisfactory
Golpour [11]	Experimental	Satisfactory
Memari [12]	Experimental	Satisfactory
Hashemi, Berooznia, Mahjoobi [13]	Quasi-experimental	Satisfactory
Tusino, Faridi, Saleh, Fitriati [4]	Experimental	Satisfactory
AlKhoudary (2015)	Experimental	Satisfactory
Mehta and Al-Mahrouqi [5]	Quasi-experimental	Satisfactory
Tahira and Haider [1]	Interview	Satisfactory

Most studies found that CT cognitive skills are best refined in environments where they are exposed to "...essential academic writing skills, such as language abilities, basic research skills and some functional familiarity with common genres of writing, such as summaries and reports." [2]. More often than not, by enhancing their writing skills, their ability to think critically can also be improved to a greater extent, as students are getting familiar and used to writing practices which "...provide opportunities for students to develop their critical thinking abilities as they become more successful in incorporating nuanced and critical ideas into their academic writings" [5].

In all of these experimental studies, experimental groups always yield the best results post-test compared to the control groups. Since they are exposed to high frequency of CT cognitive skills as well as state-of-the-art teaching and learning method, the scores between the two groups span differently and corroborate the pragmatic correlation between CT and academic writing. The same perspective is also shared with the two studies which employ questionnaire, interviews, and task-based experimental studies, where participants had undergone, to a certain extent, CT training skills and writing practices before the tests were carried out [1][3][5][13].

"The results substantiated the positive correlation between critical thinking ability and argumentative writing revealing that these two variables significantly and positively related to each other... Hence, the higher the critical thinking ability of the EFL learners is, the higher scores they obtain on their argumentative writing task." [13].

Among the 10 studies, it is found that gender [13] language proficiency [3] as well as cultural background and different traditions of discourse [1] have minimum impact to both CT and academic writing. While it may be possible that gender and cultural background have little significant influence to students' critical thinking ability, students' fluency in writing in the target language may need detailed investigation [8]. Expresses that as many EFL/ESL learners may find difficulties in expressing their thoughts in a language they are not familiar with, but through the right mechanism or strategy, they can reestablish their thoughts in their first language and integrate them into the expressions in the target language, and in the case of these 9 studies, English. After all, basic language ability is one of the fundamental competencies in academic writing skills, and such ability is likely to be mastered in order to construct a worthy substantive writing [2].

Therefore, to boost learners' performance in writing academically, and possibly for academic publications, students, educators, and syllabus makers are challenged to exploit not only the ability to think critically, which contribute to the content of the writing itself, but to

also reconstruct thoughts and arguments to a specific target language [5]. For example, mention several strategies that are likely to promote students' writing performance, from topic reflections, close reading training, drafting based on peer and instructor feedback, reviewing, to intense writing training on a particular topic that a student is interested in [8]. Takes on the so-called intellectual acts proposed by Paul and Elder as the fundamental framework that makes a paper worth reading:

1. choosing a subject or topic of importance;
2. deciding on a particular significance to elaborate;
3. providing adequate explanation;
4. establishing in-context, empirical examples for readers to connect what is happening in the topic that they are talking about;
5. using one or more analogies and/or metaphors for readers to link their experiences to the topic of the paper.

Obviously, the fact that the experimental studies that are discussed in this study have hypothesized and investigated the effect of particular treatments given to the so-called high-critical thinkers becomes the green light for other educators and/or syllabus makers to replicate or adapt the treatment, whenever the requirements fit. Many studies discussed in this study explicitly state that the significances of their experiments are none other than for the betterment of EFL/ESL learners to improve the ability to think critically, or to boost their writing ability, but most importantly, to produce notable writings and publications worth reading.

3.4 Critical Thinking and Academic Writing: The Inference

The authors of the 10 articles all perceive, and concur, that what lies between CT and academic writing is an inextricable, complementary relationship where they enhance each other upon combined and reflect tremendously in students' writing achievements. Of course, there needs to be a separate disclaimer that most successful implementations of CT in any academic writing productions are the work of training and exposure of certain teaching and learning approach, which not only promotes students' cognitive skills but also their familiarity and fluency in writing academically. Previous studies mention critical subject knowledge, manifesting authorial voice, and lastly the genres and requirements of the essay as the barriers that hinder students' writing performance Tahira et al. [1] and Samanhudi and Linse [14] argue that since postgraduate students are most likely to be "forced" and "exposed" to Western discourses and thought process, EFL/ESL learners need to face technical problems in following Western-styled discourses they are not familiar with. The same issue is experienced by Indonesian students studying in UK that they had trouble differentiating the academic requirements in Indonesian and British context [14].

However, these impediments can still be improved greatly without having to be prejudiced about the non-Western train of thoughts as the West itself is not and should not be treated as the universal solution, but to review the guidelines, approach, or methods which can promote students' abilities in thinking critically and writing academically. The majority of the articles reviewed in this paper suggest and offer some implications for syllabus makers, tutors, lecturers, and universities to reevaluate CT and academic writing as influential elements in promoting students' writing achievements, for example, substantiate that hybrid task-based language teaching is an effective method to improve learner's writing achievement. Collaborative learning also proves that readings, discussions, and presentations before writing can be appropriate strategies in promoting students' CT and writing skill In many ways, students have

to be exposed to not the Western thought process, but through continuous writing exercises to sharpen their analytical skill as well as finding their authorial voices through corroboration and refutation practices.

4 Conclusion

The role of CT in academic writing is as significant and influential as the role of academic writing in enhancing CT. This claim has been assented and corroborated by the 10 publications around Asian countries on the interplay of CT and academic writing in EFL/ESL contexts. These articles show considerable homogeneity in manifesting the significance of CT to students' writing achievement as well as writing practices to analytical, statistical, and the establishment of ethical integrity, all of which are characteristics of CT cognitive skills. Despite differences in how these researchers carried out their experiments, all of them assert that thinking critically and writing academically can both be improved together through various strategies and methods instead of the conventional/traditional teaching, as it is no coincidence that both skills have similar roles and functions which complement each other, as they make use of statistical and factual interpretation to generate analytical, bias-free publications. The experimental studies discussed in this review have mentioned several attempts that have proven adequate to boost students' critical thinking and academic writing performance, such as hybrid task-based teaching collaborative learning, writing process method, as well as "an eight-step method", and they imply that they explicitly express that these treatments can be suitably applied to real-life classroom situations, especially in the academic writing course. Implications are also homogenous that universities, tutors, and syllabus-makers are expected to reevaluate and review their curriculum or provide state-of-the-art teaching innovations in order to help their students in thinking critically and writing academically.

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