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The Impact of Critical Thinking Disposition on University Students' English Writing Proficiency

Tian Jie^{1*} and Ng Soo Boon²¹Tangshan Vocational and Technical College, China²SEGi University, Kuala Lumpur, Malaysia

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*Corresponding Author

Tian Jie

E-mail: 1426835162@qq.com

Co-Author(s):

Author 2: Ng Soo Boon

E-mail: ngsooboan@segi.edu.my

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ABSTRACT

Introduction: Writing is a crucial component of the English as a Foreign Language (EFL) curriculum, posing significant challenges to English learners. This study investigates the potential influence of Critical Thinking Disposition (CTD) on English Writing Proficiency (EWP) among university students, aiming to ensure sustainable improvement in EWP. **Methods:** The study was conducted at a Chinese Normal University, involving 356 sophomore English majors. A mixed-method research design was employed, starting with the administration of the Critical Thinking Disposition Inventory-Chinese Version (CTDI-CV) to assess students' CTD levels. The Test for English Major Band 4 (TEM4) writing tasks were used to evaluate EWP. Following this, semi-structured interviews were conducted with eight students—four with the highest CTD scores and four with the lowest—to explore their challenges and suggestions for improving EWP. **Results:** The analysis revealed a positive correlation between CTD and EWP. Students with higher CTD scores demonstrated better writing proficiency in the TEM4 assessments. The qualitative data from the interviews highlighted that students with higher CTD were better at organizing their thoughts and articulating their ideas in writing. Conversely, those with lower CTD scores faced more significant challenges in these areas. **Discussion:** The findings suggest that enhancing CTD can lead to improved EWP among EFL learners. The interviewed students recommended more student-centered teaching activities that focus on developing critical thinking skills in writing lectures. **Conclusion:** This study underscores the importance of integrating CTD into EFL writing instruction. Lecturers are encouraged to adopt teaching strategies that promote critical thinking to facilitate better writing outcomes for students. Further research is needed to explore effective methods for embedding CTD in various aspects of EFL education.

Keywords: Critical Thinking Disposition; Critical Thinking; English Writing Proficiency; Mixed-method Research Design; Challenges and Suggestions.

1. INTRODUCTION

The advent of internet technology has brought many changes to human society, one of which is the prolific use of the English language as it is the language of the commercial world as well as the academic world in the virtual space. This has created a situation where

the English language is widely given attention in schools as well as institutions of higher education in many developing countries. To be proficient in the English language requires reading, writing, and listening skills. English Writing Proficiency (EWP) has been given greater attention by academics (Dutta, 2020) as EWP is essential

in strengthening the acquired language knowledge and is a fundamental written communication tool (Huang & Jun, 2020). Poor performance in English writing among China university students has caused increased anxiety among both lecturers and students (Zhang & McEneaney, 2020). Thus, it would be useful and valuable to determine the factors that may influence EWP.

The act of writing stimulates thinking. The writing process itself is a thinking process and with practice, writing can build critical thinking. What is critical thinking? According to the Cambridge Dictionary, critical thinking is the process of thinking carefully about a subject or idea, without allowing feelings or opinions to affect you. Another definition describes critical thinking as disciplined thinking that is clear, rational, open-minded, and informed by evidence (Dictionary.com). Critical thinking entails effective communication and problem-solving abilities (Richard Paul & Linda Elder, 2008). Critical thinking can be measured from two dimensions: Critical Thinking Skills (CTS) and Critical Thinking Disposition (CTD) (Facione, 2000). CTS focuses on cognitive strategies, while CTD emphasises the attitudinal components of thinking to put skills into practice. A study conducted by Elder and Paul (2020) has discovered a strong relationship between critical thinking with English learning achievement. Other studies have indicated that the relationship between disposition and skills is significant (Palavan, 2020). CTD also provides an indispensable situation for the application and development of CTS (Fikriyati et al., 2022) and positively affects language learning achievement (Muhammadiyah et al., 2020).

Many researchers explored CTS's influence on language learning in the EFL context. However, little research focuses on the impact of CTD on academic achievement, especially on English Writing Proficiency. Therefore, the current study was conducted to fill in the gap and examine the relationship between CTD and EWP, shedding light on improving EWP, particularly in the China EFL context. English writing course is compulsory for English major students in China. Chinese students have generally considered English writing as a challenging skill, thus there is an urgent need to identify students' personal attributes and challenges in learning English writing and investigate factors influencing EWP.

In this study, the researcher examined the influence of CTD on EWP with the following research objectives:

- RO1: To investigate the level of CTD among the students.
- RO2: To investigate the level of EWP among the students.
- RO3: To examine whether there is a significant relationship between CTD and EWP.

RO4: To explore the respondents' challenges and suggestions to improve their EWP.

Correspondingly, the research questions were as follows

- RQ1: What is the level of CTD among the students?
- RQ2: What is the level of EWP among the students?
- RQ3: Is there a significant relationship between CTD and EWP?
- RQ4: What are the respondents' challenges and suggestions to improve their EWP?

2. LITERATURE REVIEW

According to the "English Teaching Syllabus for English Majors in Universities" formulated by the China College Foreign Language Teaching Steering Committee in 2016, the teaching goal of English majors is to focus on cultivating students' ability to acquire knowledge and master independent thinking and innovative thinking. This purpose can be achieved if students possess Critical Thinking (CT).

2.1 Concept of Critical Thinking

Different scholars provide different definitions of critical thinking. The American critical thinking movement pioneer, Ennis (1993) defined critical thinking as an individual's reasoning and reflective thinking about what to do and believe. Earlier, Mcpeck (1985) argued that critical thinking comprises skills and tendencies in individual reflective thinking. Paul (2005) further reiterated that critical thinking means actively and skillfully interpret and respond to using, analysing, synthesising, and evaluating information that governs beliefs and behaviours. Although these scholars used different words to define critical thinking, they shared a common core. They defined critical thinking from the perspective of the thinking process and believed that critical thinking is a kind of high-level thinking ability.

2.2 Concept of Critical Thinking Disposition

A critical disposition is a consistent penchant or tendency of thought. The Delphi Report stated that critical thinking comprises cognitive skills and personal attributes. Developing good critical thinking involves nurturing dispositions. Thus, it is implied that without a favourable critical thinking disposition (CTD), critical thinking will not be successful (Hitchcock & David, 2022; Perkins et al., 2012). Conceptually, CTD is defined as a willingness to persist confidently in using critical thinking skills when dealing with problems.

The critical thinking construction model proposed by Facione and Facione (2000) is well-accepted worldwide. It claimed that critical thinking should be

conceptualised as Critical Thinking Skills (CTS) and Critical Thinking Dispositions (CTD). CTS comprises six abilities: Interpretation, Analysis, Evaluation, Inference, Explanation and Self-regulation, which are used in making judgments and decisions. CTD consists of seven dimensions: Truth-seeking, Open-mindedness, Analyticity, Systematicity, Critical Thinking, Confidence, Inquisitiveness, and, Maturity (Facione & Facione, 2000). These dispositions are described in detail as follows:

- Truth-seeking: individuals' persistence to track the evidence or facts, even if the established belief may be challenged.
- Open-mindedness: individuals tend to be open to others' opinions and be ready to adapt based on the fact.
- Analyticity: individuals' tendency to be reasoning and logic
- Systematicity: individuals' tendency to deal with the problem in an orderly, organised, and disciplined manner
- Critical Thinking Confidence: individuals' confidence in their competence to solve problems with reasoning and reflective thinking
- Inquisitiveness: individuals' tendency to consistently be curious about the newly-coming knowledge, even if it seems to be useless at the time being
- Maturity: individuals' aptitude to appreciate the information in a more complex manner rather than a simple justification. The aptitude enables individuals to make decisions without any delay.

2.3 English Writing Proficiency

Writing proficiency affects academic and professional achievements across all subjects (Silvia, 2018). Kareva and Spirovska (2020) stressed that "In terms of skills, producing a coherent, fluent, extended piece of writing is probably the most difficult thing there is to do in language. It is something most native speakers never master" (p. 271). For English as Foreign Language (EFL) and English as Second Language (ESL) learners, writing is an even more challenging task. Therefore, EFL and ESL educators and instructors would continuously seek ways to improve students' English writing proficiency (EWP). Writing has been increasingly employed as a measurement to evaluate applicants' qualifications by both universities and companies (Bass & Moore, 2023).

2.4 Critical Thinking Disposition and English Writing Proficiency

Bass and Moore (2023) proposed that writing is an action to transfer what we think and consider into

words and sentences and suggested that the cultivation of writers needs to investigate writers' thinking including critical thinking during their writing process. This was echoed by an earlier study by Reid and Chin (2021) who examined the influence of students' CTD on their writing achievement among seventy college students. The results revealed a positive relationship between them. The relationship between the cultivation of critical thinking ability and the teaching of English majors has become the research focus of foreign language teaching in China. Zhang (2011) confirmed that a correlation exists between CTD and the level of English learning among English major students in her study.

2.5 Argumentative Writing

Argumentative Writing is part of EWP. Compared with other writing genres, argumentative writing has specific characteristics. Argumentation, as a form of communication, is used to settle disagreements on controversial issues (Ferretti & Graham, 2019). According to Seyoum et al. (2022), argumentations move through a logical process to resolve differences of opinion. It also necessitates the elaboration of multiple sides of an issue and the provision of supporting evidence. A series of evidence is used in argumentative writing to support or refute a particular viewpoint on an issue (Ferretti & Graham, 2019). Nejmaoui (2019) even outlined a set of requirements for solid argumentation. These include a clear position and adequate supporting reasons, referring to sufficient (typically multiple), accurate and pertinent reasons to support the position. In addition, there must be counter argumentation, referring to the alternative points and their supporting reasons and conclusion, in which both argument and counterargument should be considered, by either siding with one position or synthesises the views.

Argumentation requires the use of language, both verbal and written. Argumentative writing is considered a more complicated type of writing (Drid, 2014). It depends more on students' cognitive skills than linguistic fluency (Fadhly et al., 2018). Argumentative writing is prevalent across disciplines and essential to students' success in college. According to Nakano and Muniz (2018), argumentative writers adopt other people's perspectives and attempt to reach the goal of persuading and communicating rather than merely presenting the information. Argumentative writing aids in comprehension improvement (Cai, 2021) and the development of scientific thinking (Cronje et al., 2013).

The Ministry of Education in China has developed the Test for English Major (TEM) examination to systematically evaluate students' EWP in higher learning institutions. One component of TEM is argumentative writing. TEM

comes in different Bands. The respondents in this study who are in their sophomore year have been designated to take TEM Band 4 (TEM 4). TEM 4 is compulsory for all English Major students in sophomore year. TEM 4 writing tasks require students to comment critically on the problems mentioned in a few given passages that focus on current issues and which require societal attention. Students' EWP in this study was measured through TEM 4.

3. METHODOLOGY

The research approach of sequential explanatory mixed-method research design was adopted in this study, which means that qualitative data collection is followed by quantitative data collection. For the quantitative part, this study specifically investigated the level of CTD, EWP and their correlation. The qualitative part on the other hand explored the challenges and suggestions from respondents with the highest and lowest CTD achievers. The mixed-method research design was used as it is through both the use of quantitative and qualitative data collection that the reality of the research context can be fully obtained. The quantitative results provided a general picture of the target research, while the qualitative part explained deeper the findings in the quantitative part.

3.1 Population and Samples

The research setting is a Normal University in Hebei province, China. Every year there is a population of approximately 550 English major sophomores in ten classes enrolled in the university. In this study, data were randomly collected from these ten classes. A total of three hundred and fifty-six (356) sophomores were involved in the quantitative data collection and responded to the questionnaires. Eight (8) students were chosen purposefully to participate in focus group interviews. They are those who scored the four highest CTD achievers and the four lowest CTD achievers, respectively.

3.2 Instruments

The California Critical Thinking Disposition Inventory (CCTDI) is a widely accepted instrument to measure Critical Thinking Disposition (CTD) (Facione, 2000). Peng et al. (2004) modified the original English version of CCTDI and translated it into the Critical Thinking Disposition Inventory-Chinese Version (CTDI-CV). This study used the CTDI-CV to examine the CTD level among the respondents. CTDI-CV evaluated respondents' CTD from seven subscales: Truth-seeking, Open-mindedness, Inquisitiveness, Systematicity, Analyticity, Critical Thinking Confidence, and Maturity. CTDI-CV consists of 70 items, 10 for each subscale. The overall CTD score ranges from 70 to 420, while each subscale is ranked between 10-60. Scores

above 350 indicate a strong CTD; scores from 280 to 349, a positive CTD; scores from 210 to 279, an ambivalent CTD; scores below 210, a negative CTD. For each subscale, scores ranging from 50 to 60 suggest a strong disposition; scores from 40 to 49, a positive disposition; scores from 30 to 39, an ambivalent disposition; scores below 30, a negative disposition.

Students' English Writing Proficiency (EWP) was examined with the writing tasks excerpted from the TEM4 (Test for English Major Band Four) Examination. Only two writing tasks were selected due to the limitation of time. Students were gathered in their respective classes at designated times to sit for this test. The mean score of the two essays indicates the students' EWP.

The interviews were conducted using a semi-structured interview protocol consisting of two sections. Section one includes warm-up questions to help create a relaxed atmosphere for the students and explore their background information. In the second section, the questions explored students' challenges and suggestions for improving their EWP. These questions were open-ended, inspiring free responses from the students. The semi-structured interviews were designed based on the conceptual framework of the study and the feasibility of the study (Magaldi & Berler, 2020). Researchers can delve deeper into the participants' responses to these open-ended questions (Lune & Berg, 2017).

3.3 Reliability and Validity

Two experts in the field ascertained the content validity of the research design and instruments, including the questionnaires and semi-structured interviews. Prior to the actual study, a pilot study was carried out using hundred and fifty-two (152) sophomore-year students from the same university. The reliability of CTDI-CV was examined. It obtained an overall Cronbach Alpha coefficient of 0.85, with the subscale coefficients ranging from 0.75 to 0.83. The results showed the high reliability of CTDI-CV. In addition, the inter-rater reliability of essay scoring was also examined with an agreement of 85%.

4. DATA COLLECTION AND ANALYSIS

Data collection was divided into two phases. In phase one, the CTDI-CV was transferred into Wenjuanxing, an application for questionnaire distribution and distributed to the sample students. They had to answer all questions before submitting the questionnaires. One week later, these respondents were gathered again to complete the two TEM 4 argumentative writing tasks under the invigilation of the researcher. Subsequently, two raters (from the university's English Department) scored the two essays according to the official TEM scoring rubrics. The scoring rubric evaluated the essay from three

perspectives: language usage, context organization, and content presentation of their arguments towards the issues presented in the given essays. The scores given by the two raters were documented and compared, and discussions were conducted between the raters after the initial marking until an 85% inter-rater reliability is reached. In Phase 2, two focus groups interview with four highest CTD achievers and four lowest CTD achievers were conducted. Within these two groups, gender representativeness was ensured.

The quantitative data analysis was conducted using SPSS (version 25). Accordingly, descriptive and inferential statistics were carried out. The interview for the qualitative data was audiotaped and transcribed verbatim and then analysed using NVivo (version 12).

4.1 Ethical Consideration

A researcher must always consider ethical issues when conducting research especially when it involves other human beings. It is important to adhere to ethical principles to protect the dignity, rights and welfare of research participants. In this study, the researcher clarified the details concerning the study before the questionnaire distribution, declaring voluntary participation among the sample students. The sample students signed the consent letters to confirm their willingness to participate in the study. It was assured that they could withdraw from the study at any time during the research procedure.

Before the interviews, the researcher gained permission from the respondents to audio-record the interviews, verifying the authenticity of the whole procedure. The researcher guaranteed that the data would be confidentially interpreted only for research purposes. Official permission to use Kolb's Learning Style Inventory Version 3.1 was obtained from Korn Ferry, who possesses the copyright of the instrument. The open source enabled the researcher to use CTDI-CV freely for research purposes in China. Moreover, the university and the faculty had authorised the researcher to conduct the study.

5. FINDINGS

The findings of the current study will be presented according to the research objectives and research questions.

5.1 Level of Critical Thinking Disposition (CTD)

Table 1 showed that the overall CTD mean score was 282.35 ($SD = 29.977$), indicating a positive CTD but just above the cutting-off point ($M = 280$). In addition, the sample students achieved the highest mean score on the Maturity subscale ($M = 42.67$,

$SD = 9.593$), which was followed by Analyticity ($M = 41.56$, $SD = 10.107$), Systematicity ($M = 41.27$, $SD = 9.950$), Inquisitiveness ($M = 40.33$, $SD = 8.261$) and Critical Thinking Confidence ($M = 40.17$, $SD = 8.573$). In contrast, the sample students achieved the lowest mean score on the Truth-seeking subscale ($M = 36.92$, $SD = 8.649$) and ranked the second lowest on Open-mindedness ($M = 39.42$, $SD = 8.393$).

Results from the interviews revealed that the respondents were negatively disposed towards Truth-seeking. Both the highest and lowest CTD achievers shared their indifference about their viewpoint-choosing in essay writing by saying,

"I may choose the viewpoint that is easier for me in terms of vocabulary and evidence (R3)" and "I prefer the view that I can find enough evidence. (R7)".

They further explained the reason for their decision as follows:

".....what I care about is the final score of the essays; in this way, I can achieve my purpose" (R2).

None of the respondents mentioned writing for the "truth".

5.2 Level of English Writing Proficiency (EWP)

Table 2 showed the sample students' EWP levels. EWP was scored based on the official assessment rubric. The two essays are labelled Writing 1 and Writing 2, with the mean score indicating the respondents' EWP. The

Table 1. Critical Thinking Disposition Level (n=356)

Subscale	Min	Max	Mean	SD
TS	13	57	36.92	8.649
OM	12	57	39.42	8.393
ANA	12	59	41.56	10.107
SYS	13	59	41.27	9.950
CTC	12	57	40.17	8.573
INQ	11	58	40.33	8.261
MAT	13	59	42.67	9.593
Overall CTD	188	355	282.35	29.977

Note: TS: Truth-seeking, OM: Open-mindedness, ANA: Analyticity, SYS: Systematicity, CTC: Critical Thinking Confidence, INQ: Inquisitiveness, MAT: Maturity, CTD: overall Critical Thinking Disposition

Table 2. Respondents' English Writing Proficiency Level (n=356)

Item	Mean	SD
Writing1	10.58	2.209
Writing2	12.79	2.831
EWP	11.685	2.327

students' mean scores for Writing 1 and Writing 2 were 10.58 ($SD = 2.209$) and 12.79 ($SD = 2.831$), respectively. The mean score of EWP among the sample students is 11.685 ($SD = 2.327$), indicating a low EWP level.

5.3 Correlation between CTD and EWP

There was a significant and positive correlation between EWP and overall CTD ($r = 0.327$, $p < 0.01$). The results showed that students with higher CTD achieved higher scores in EWP, however, the correlation is not very high.

5.4 Challenges in Writing Argumentative Writing

Qualitative data were collected through the semi-structured in-depth interview. Students were grouped according to their CTD levels. The students' CTD scores were divided into four levels: Level 1 (scoring 209 and below), Level 2 (scoring from 210 to 279), Level 3 (scoring from 280 to 349), and Level 4 (scoring 350 and above). Group One was made up of the students ranking the highest CTD scores, while those in Group Two scored the lowest CTD scores. All eight respondents were labelled R1 to R8 in this study. The findings from the interviews illustrated three main challenges the respondents face in English writing: limited vocabulary and grammar knowledge, insufficient thinking skills and personal factors.

5.4.1 Challenge I: Limited Vocabulary and Grammar Knowledge

Limited vocabulary and grammar knowledge was the respondents' challenge in their writing. It restricted the students to express their thoughts fully in English. Some samples of quotes were as follows:

...many times, I am confined to limited words when I have an idea to write about. I have an idea but cannot write it down because I do not know the corresponding English word or have to substitute it for the word I know. So, there may be a little deviation between what I want to say and what it expresses. (R2)

I have a lot of ideas in my mind, but I cannot write them out. It is limited to my competence. I have ideas to write, but it may be difficult for me to express them accurately. (R5)

I want to express a particular meaning but cannot express it in English; I do not know how to say (write) it. (R4)

Also, I do not know how to express the meaning more accurately in English. (R7)

5.4.2 Challenge II: Insufficient Thinking Skills

Bauman and May (2019) indicated that thinking is skilled work. It is not endowed naturally but obtained

through learning and practising. The respondents in this study wrote two argumentative essays excerpted from TEM4. They were required to think about the contradictory opinions and comment with supporting evidence using thinking skills like analysing, organising and compiling. During this exercise, the respondents shared their worries related to thinking skills. They voiced out difficulties in finding supporting evidence, shallow thinking, weak logicity, analyticity and confining to Chinese thinking. Examples of quotes were as follows:

Sometimes I may confine myself to my ideas when reviewing the topic. It is difficult for me to develop more convincing evidence during the exam. (R2)

I do not have more evidence to support my viewpoint. I come up with almost the same arguments when I see the topic. I have nothing to say when I write, and often I cannot meet the lowest word limit. (R8)

I am always discussing it at the same level. For example, if I want to say that the weather is very good, I can say it repeatedly. I cannot discuss it from different aspects and explore more arguments. I feel that the content is not substantial enough. (R7)

Also, I do not know what to write because I have nothing to say. The same meaning was told back and forth in a composition, which is particularly boring. (R6)

The British and the Chinese express ideas in different ways. We hold different attitudes towards a particular issue. I tend to follow Chinese Thinking and fail to broaden my mind. (R5)

5.4.3 Challenge III: Personal Factors

Respondents also mentioned the challenges they faced concerning personal factors like forgetfulness, lack of concentration, and lack of initiative, as shown in the sample quotes below:

I do not like memorising something; I always forget what I learned in class or myself. So, I cannot accumulate as many words and phrases as possible. I also want to do it, but rarely do I make it (R2)

I am a person who is easily distracted. Moreover, we have a big class, and it is easy to get distracted or sleepy. When I cannot keep up with the class, I do not want to continue to listen to the class. (R5)

Because for me, initiative in learning is relatively weak, and I do not have much self-consciousness about learning." (R3)

I do not particularly like to write English composition, no matter whether English composition or Chinese composition; I do not want to write (R8)

Sometimes it's boring to learn grammar in class. If I cannot keep up with it anytime, I may feel tired and sleepy and quit listening. (R3)

5.5 Suggestions to Improve EWP

There are several differences among the interviewees between those with the highest and the lowest CTD levels. Three themes emerged from the interview data: teaching strategies, teaching content, and writing feedback.

Theme 1: Teaching strategies

Respondents advocated more student-centred activities where they can have intellectual discussions such as brainstorming and group discussion. with their classmates and teachers.

Theme 2: Teaching content

Respondents suggested more model essays and templates for practice purposes so that they can fulfil their essays more easily. This suggestion was given by both the highest and lowest CTD achievers.

Theme 3: Writing feedback

There is a difference in terms of writing feedback between the higher achievers and the lower achievers as shown in Figures 1 and 2. The former wants more feedback but not the latter. There needs to have further study to ascertain the reasons for such a phenomenon.

6. DISCUSSION

The research showed that the overall mean score of CTD is 282.35. This value is barely above the

cutting-off point of 280, indicating a positive but low CTD among respondents. This result aligns with the findings of the research conducted by Wen Qiufang (2014). The marginally positive CTD score was also verified among English major learners in southern China (Li, 2023). There are many possible reasons for the low CTD score. One of the arguments put forth is the culture of Chinese society which focuses more on conforming rather than argumentative. Jiang (2018) felt that Confucianism might have played a vital role because being rooted in China, Confucianism emphasises unity rather than opposition, synthesis rather than logic. Chinese traditional culture values obedience from the lower ranks towards their superiors. Therefore, it seems to be rude to argue with the authorities for fear of challenging them. The Chinese traditional culture might hinder thinking independently and critically, indicating a lower CTD level. Underlying the background of this particular Chinese culture, students are prone to follow what the teacher says and what is written in the books. As R5 mentioned in the interview,

“By reciting template, I think I can achieve high marks in the composition” (and this is because) “the template in the book is good for me to copy, they come from the experts and teachers”.

They never doubted the actual value of the templates, believing templates were worthwhile to be followed—the rampant use of templates probably curbs critical thinking development among students. Therefore, respondents suggested that lecturers introduce more templates in the writing lectures.

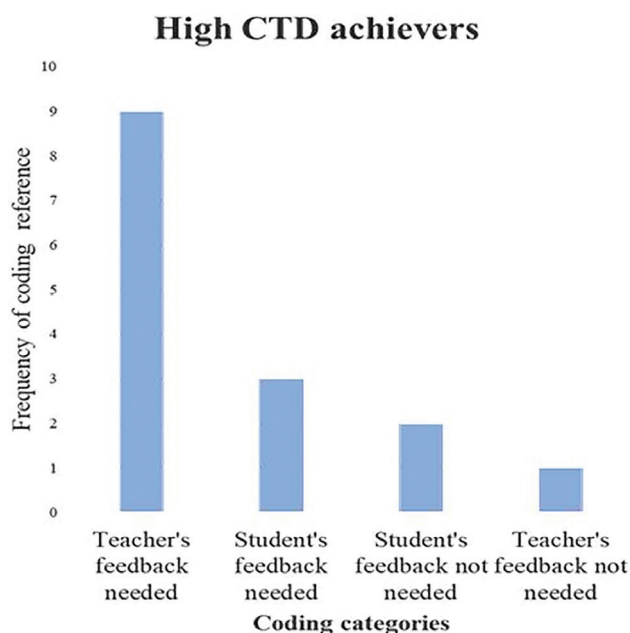


Figure 1. High CTD Achievers' Suggestions

Source: Authors.

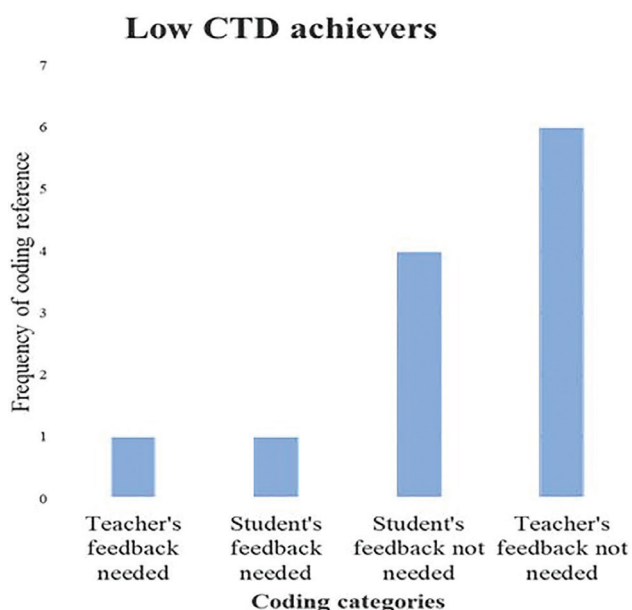


Figure 2. Low CTD Achievers' Suggestions

Source: Authors.

A significant and positive correlation between overall CTD and EWP was ascertained in this study. This result aligns with the findings of Facione and Facione (2000), who found a significant and positive correlation between college students' CTD and academic achievement in America. In their study, Peng and Zhang (2014) who investigated CTD among English major students in China found that in general, respondents with higher CTD scores achieved higher scores in EWP.

In terms of subscales of CTD, McClenny (2010) found a significant correlation between CTF and Maturity and Analyticity. The same results were also discovered in this study where the correlation is as follows: EWP and the subscales of Maturity, $r = 0.331$; EWP and Analyticity, $r = 0.260$. Similarly, Chen (2022) found that the highest correlation was between Maturity and EWP among 180 university students. From his viewpoint, the depth and breadth of thinking originating from Maturity affected learners' writing proficiency. Maturity refers to a tendency to see problems critically rather than in black and white, while Analyticity refers to an inclination to be aware of what would happen next, with the habit of analysing the situation's merits and demerits. These qualities are instrumental to argumentative writing.

The correlation between CTD and EWP infers that students' CTD determines their EWP. Both levels of CTD and EWP among the respondents were found to be relatively low. The in-depth interviews revealed respondents' challenges in writing, and they admitted their lack of critical thinking skills. The lack of critical thinking skills was compounded by their deficiency in vocabulary and grammar knowledge. Therefore, students could not express their thoughts well in English. Also, respondents revealed they were less motivated in doing the writing tasks than obtaining higher scores. Hence, they are inclined to resort to memorising 'templates'. Respondents advocated more student-centred strategies in writing courses indicating the yearning to improve their critical thinking skills.

7. CONCLUSION

The level of CTD and EWP among the English major sophomore was comparatively low at China Normal University. There was a weak though positive correlation between CTD and EWP. The respondents faced challenges like limited vocabulary and grammar knowledge, insufficient thinking skills and personal factors in writing. The respondents advocated more student-centred teaching strategies, templates, and feedback to assist them in improving their writing proficiency. The higher and lower CTD achievers hold different views towards writing feedback whereas the lower CTD achievers shunned feedback from their teachers and peers.

7.1 Implication and Recommendation

This study presented that CTD was positively correlated to EWP, meaning that students with higher CTD have a higher possibility of outperforming those with lower CTD regarding EWP. Hence, more attention should be put on CTD cultivation during English writing lectures. The findings of this study could contribute to better instruction in teaching writing specifically argumentative writing at the university level. Skills alone cannot guarantee the employment of critical thinking in a particular circumstance (Hitchcock, 2018). The willingness to use the skills (CTD) helps improve performance in English argumentative writing.

In teaching English writing, lecturers should emphasise the greater importance of cultivating students' CTD in their English writing lectures. To achieve this purpose, lecturers should change the current teacher-centred pedagogy to student-centred pedagogy, prioritising critical thinking cultivation. Brainstorming and group discussion should be advocated to stimulate a vibrant and engaging atmosphere. Learners should actively participate in the brainstorming activities, figuring out the pros and cons of discussing the topic. In this process, learners are encouraged to share their views and think from a broader view, which may cultivate their aptitude to think independently and critically. Group discussion is also a highly advocated activity in writing class, especially in the feedback procedure. Lecturers can divide students into groups of three to four individuals to discuss the composition in detail. The group members are encouraged to interrogate teachers' and peers' views to find solutions to the problem and accept others' opinions. The interaction among students may enable them to gain a multi-dimensional view of the problems.

In addition, some suggestions are offered for future research. First, the quantitative data were collected among a limited sample of 356 sophomores in the same university. It is suggested to investigate a more significant number of populations to enable a more valid generalisation. Since this study focused on English major sophomores, a long-term investigation could also be conducted among English majors, examining their evolution in CTD. Based on the correlation between CTD and EWP verified in this study, more researchers may relate the CTD to the learning outcomes in various academic fields, investigating their relationships in depth.

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References

- Alagozlu, N. (2007). Critical thinking and voice in EFL writing. *Asian EFL Journal*, 9(3), 118-136.
- Bass, R., & Moore, J. L. (Eds.). (2023). *Understanding writing transfer: Implications for transformative student learning in higher education*. Taylor & Francis.
- Bauman, Z., & May, T. (2019). *Thinking sociologically*. John Wiley & Sons.
- Cai, W. (2021). Practical research on improving high school students English discourse comprehension ability through post-reading writing. *Tianjin Education* (005), 82-83.
- Cambridge English Dictionary. (n.d.) Critical thinking. In Cambridge English Dictionary <https://dictionary.cambridge.org/us/dictionary/english/critical-thinking>
- Chen Danli. (2022). *A study on the correlation between high school students critical thinking orientation and English writing content knowledge presentation strategies* (Master's thesis, Guangdong Technical Normal University). <https://kns.cnki.net/KCMS/detail/detail.aspx?dbname=CMFD202301&filename=1022580571.nh>
- Dictionary.com. (n.d.) Critical thinking. In Dictionary.com <https://www.dictionary.com/browse/critical-thinking>
- Dutta, S. (2020). The Importance of "English" Language in Today's World. *International Journal of English Learning & Teaching Skills*, 2(1), 1028-1035. <https://doi.org/10.15864/ijelts.2119>
- Elder, L., & Paul, R. (2020). Critical thinking: Tools for taking charge of your learning and your life. *Foundation for Critical Thinking*. <https://www.criticalthinking.org/pages/defining-critical-thinking/766>
- Ennis, R. H. (1993). Critical thinking assessment. Theory Into Practice: Vol. 32, Issue 3. *Teaching for Higher Order Thinking*. 179-186.
- Facione, P. A. (2000). The disposition toward critical thinking: Its character, measurement, and relationship to critical thinking skill. *Informal logic*, 20(1), 61-84
- Fadhly, F. Z., Emzir, E., & Lustyantje, N. (2018). Exploring the cognitive process of research topic selection in academic writing. *English Review: Journal of English Education*, 7(1), 157-166.
- Fahim, M., & Koleini, A. (2014). The relationship between the critical thinking ability of Iranian EFL learners and their speaking skills. *International Journal of Language Learning and Applied Linguistics World*, 5(4), 233-241.
- Ferretti, R. P., & Graham, S. (2019). Argumentative writing: Theory, assessment, and instruction. *Reading and Writing*, 32, 1345-1357.
- Fikriyati, A., Agustini, R., & Suyatno, S. (2022). Preservice Science Teachers' Critical Thinking Dispositions and Critical Thinking Skills. Proceedings of the Eighth Southeast Asia Design Research (SEA-DR) & the Second Science, Technology, Education, Arts, Culture, and Humanity (STEACH) International Conference (SEADR-STEACH 2021), 627, 176-181. <https://doi.org/10.2991/assehr.k.211229.028>
- Fikriyati, A., Agustini, R., & Suyatno, S. (2022, January). Preservice Science Teachers' Critical Thinking Dispositions and Critical Thinking Skills. In *Eighth Southeast Asia Design Research (SEA-DR) & the Second Science, Technology, Education, Arts, Culture, and Humanity (STEACH) International Conference (SEADR-STEACH 2021)* (pp. 176-181). Atlantis Press.
- Ghorbandordinejad, F., & Heydari, M. (2012). On the relationship between Iranian EFL students'critical thinking ability and their reading comprehension micro-skills. *Philippine ESL Journal*, 9(3), 130-141.
- Hitchcock, D. (2018). Critical thinking. *The Stanford Encyclopedia of Philosophy* (Fall 2018 Edition), Edward N. Zalta (ed.), at <https://plato.stanford.edu/archives/fall2018/entries/critical-thinking/>,
- Huang, Y., & Jun Zhang, L. (2020). Does a Process-Genre Approach Help Improve Students' Argumentative Writing in English as a Foreign Language? Findings From an Intervention Study. *Reading and Writing Quarterly*, 36(4), 339-364. <https://doi.org/10.1080/10573569.2019.1649223>
- Jafari, Z., Yavari, S., & Ahmadi, S. D. (2015). The impact of self-assessment on EFL learners' critical thinking. *Modern Journal of Language Teaching Methods*, 5(1), 145-149. Available at <https://www.questia.com/library/journal/1P3-4017267101/the-impact-of-selfassessment-on-efl-learners-critical>
- Jiang, Y. H. (2018). Confucian Political Theory in Contemporary China. *Annual Review of Political Science*, 21, 155-173. <https://doi.org/10.1146/annurev-polisci-041916-020230>
- Kareva, V., & Spirovska, E. (2020). A synthesis of technique and proficiency in teaching writing. *Belgrade English Language and Literature Studies*. 1 (19), 327- 341.
- Li Yan. (2023). PBL Instructional Design Research on Improving College Students' Critical Thinking Tendency (Master's Thesis, Shenyang Normal University). <https://kns.cnki.net/KCMS/detail/detail.aspx?dbname=CMFDTEMP&filename=1023517952.nh>
- Magaldi, D., & Berler, M. (2020). Semi-structured interviews. *Encyclopedia of personality and individual differences*, 4825-4830
- McPeck, J. E. (1985). Critical Thinking and the "Trivial Pursuit" Theory of Knowledge. *Teaching Philosophy*, 8(4), 295-308.
- McPeck, J. E. (1990). Critical thinking and subject specificity: A reply to Ennis. *Educational researcher*, 19 (4), 10-12.
- Muhammadiyah, H., Mahkamova, D., Valiyeva, S., & Tojiboyev, I. (2020). The role of critical thinking in developing speaking skills. *International Journal on Integrated Education*, 3(1), 62-64.
- Nakano, D., & Muniz Jr, J. (2018). Writing the literature review for an empirical paper. *Production*, 28, e20170086.
- Nejmaoui, N. (2019). Improving EFL Learners' Critical Thinking Skills in Argumentative Writing. *English language teaching*, 12(1), 98-109.

- Palavan, Ö. (2020). The effect of critical thinking education on the critical thinking skills and the critical thinking dispositions of preservice teachers. *Educational Research and Reviews*, 15(10), 606–627. <https://doi.org/10.5897/err2020.4035>
- Palavan, Ö. (2020). The Effect of Critical Thinking Education on the Critical Thinking Skills and the Critical Thinking Dispositions of Preservice Teachers. *Educational Research and Reviews*, 15(10), 606-627.
- Paul, R. (2005). The state of critical thinking today. *New Directions for community colleges*, 2005(130), 27-38.
- Paul, R., & Elder, L. (2008). The Miniature Guide to Critical Thinking Concepts and Tools, *Foundation for Critical Thinking Press*. <https://www.criticalthinking.org/pages/defining-critical-thinking/766>
- Peng Jinding, & Zhang Yanwen. (2014). Practical research on the development of critical thinking ability for graduate students in English curriculum and pedagogy: a subject teaching perspective. *Shandong Foreign Language Teaching*, 35(4), 54-59.
- Reid, S., & Chin, P. (2021). Assessing critical thinking in L2: An exploratory study. *Shiken*, 21(1), 8-21.
- Seyoum, W. M., Yigzaw, A., & Bewuketu, H. K. (2022). STUDENTS' ATTITUDES AND PROBLEMS ON QUESTION-BASED ARGUMENTATIVE ESSAY WRITING INSTRUCTION. *Journal of English Language Teaching and Learning*, 3(2), 58-63.
- Shirkhani, S., & Fahim, M. (2011). Enhancing critical thinking in foreign language learners. *Procedia - Social and Behavioral Sciences*, 29, 111–115. <https://doi.org/10.1016/j.sbspro.2011.11.214>
- Silvia, P. J. (2018). *How to write a lot: A practical guide to productive academic writing*. American Psychological Association.
- Wen Qiufang. (2014). The controversy between General English and Specific English in College English Teaching: Problems and Solutions. *Foreign Languages and Foreign Language Teaching*, 1, 1-8.
- Zhang, X., & McEneaney, J. E. (2020). What Is the Influence of Peer Feedback and Author Response on Chinese University Students' English Writing Performance? *Reading Research Quarterly*, 55(1), 123–146. <https://doi.org/10.1002/rrq.259>
- Zhang, Z. (2011). A nested model of academic writing approaches Chinese international graduate students' views of English academic writing. *Language and Literacy*, 13(1), 39-59.

Biographical Statement of Author(s)

Tian Jie was born in China in 1979. She received a Master Degree in English from Hebei Normal University in China, and a PhD degree in Education from Segi University, Malaysia.

She is actively involved in English education, especially in English writing.



Dr. Tian Jie

Tangshan Vocational and Technical College
Hebei Province
China

E-mail: 1426835162@qq.com

Ng Soo Boon has a Ph.D. degree in Education specializing in curriculum development as well as a Master degree in Science Education. She has vast experience in areas such as curriculum development and evaluation, STEM education, early childhood, policy implementation.



She is currently a senior lecturer in SEGi University, Malaysia. She has been actively involved in many national, global and regional research projects related to curriculum, early childhood as well as STEM.

Dr. Ng Soo Boon

Postgraduate Department
Faculty of Education, Languages, Psychology and Music
SEGi University
Malaysia.

E-mail: ngsooboan@segi.edu.my