ADDIS ABABA UNIVERSITY

COLLEGE OF HUMANITIES, LANGUAGE STUDIES, JOURNALISM, AND COMMUNICATION

DEPARTMENT OF FOREIGN LANGUAGES AND LITERATURE

INSTRUCTORS' BELIEFS AND PRACTICES IN PROMOTING STUDENTS' CRITICAL THINKING SKILLS IN UNIVERSITY WRITING CLASSES, AND STUDENTS' CRITICAL THINKING AND WRITING PERFORMANCES

BY

YEMESERACH BAYOU KEBEDE

JANUARY 2024

ADDIS ABABA

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A DISSERTATION SUBMITTED TO THE DEPARTMENT OF FOREIGN LANGUAGES AND LITERATURE

IN FULFILMENT OF THE REQUIREMENTS FOR THE DEGREE OF DOCTOR OF PHILOSOPHY (PhD) IN ENGLISH LANGUAGE TEACHING

ADDIS ABABA UNIVERSITY

COLLEGE OF HUMANITIES, LANGUAGE STUDIES, JOURNALISM AND COMMUNICATION

DEPARTMENT OF FOREIGN LANGUAGES AND LITERATURE

This is to certify that the thesis prepared by **Yemeserach Bayou Kebede**, entitled ***"Instructors' beliefs and practices in promoting students' critical thinking skills in university writing classes, and students' critical thinking and writing performances"*** submitted in fulfillment of the requirements for the degree of Doctor of Philosophy in English language teaching (ELT) complies with the regulations of the university and meets the accepted standards with respect to originality and quality. We, the examining committee, approve that this thesis has passed through the defense and review processes.

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DECLARATION

I certify that, except for the duly acknowledged citations and references, this dissertation is based on my original work. I, the undersigned, declare that this thesis has not been previously submitted for a degree at Addis Ababa University or any other institution.

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Submission Date _____

ACKNOWLEDGEMENTS

First and foremost, praise be to God the almighty for letting me see this precious moment. God was my strength and courage to persistently accomplish this rigorous work amid all the circumstances I have gone through.

I would like to express my heartfelt gratitude to Dr. Tamene Kitila, my advisor. His critical comments and helpful guidance throughout the course of conducting this study were invaluable. In addition to the academic support, I am deeply indebted to his compassion and encouragement during my difficult times. I am also grateful to Dr. Italo Beriso, Dr. Alamirew G/Mariam, Dr. Alemu Hailu, and Dr. Taye Regassa for their insightful suggestions for the refinement of the paper at the different stages of the study.

My colleagues, Dr. Gemechu Bane, Dr. Tessema Gilo, and Dr. Sileshi Chemer, deserve my deepest gratitude for their relevant and constructive comments on some portions of the paper. My thanks, further, go to the staff members of the English language and literature department at Wolkite and Debre Tabor universities, and their students. Their appreciation, professional support, and wholehearted cooperation in devoting their precious time to participate in the study were noteworthy for the completion of this work.

Finally, I extend my deepest gratitude to my family, Ato Bayou Kebede, Aregash Geleta, Eyerusalem Bayou, Mulualem Demisse, and Alemendegena Abebe for their unreserved moral support, patience, and understanding throughout this long and arduous academic journey.

ABSTRACT

The requirement for students' critical thinking (CT) skills in academic writing, particularly in higher education, prompts the promotion of students' CT skills in writing classes to gain prominent attention. This study, therefore, sought to investigate instructors' beliefs and practices in promoting students' CT skills in university writing classes and students' CT and writing performances. The study had a multiple case study design. Six purposively selected instructors along with 244 students from Debre Tabor University were participated. Classroom observation, interviews, questionnaire, document analysis, and essay writing were the data-gathering instruments used in the study. Qualitative and quantitative data analysis approaches served to analyze the data. The findings revealed that the instructors interpreted CT as the ability to have an in-depth understanding, reflect ideas logically, and look at things from multiple perspectives in written works. They mentioned several CT skills-promoting instructional mechanisms such as input provision, facilitating, process writing approach, writing-and-reading skills integration, collaborative work, and explicit CT skills introduction. They advocated argumentative, cause-effect, compare-and-contrast, summary writing, jigsaw tasks, and jumbled sentences as CT skills-promoting writing activities in writing classes. On the contrary, despite their beliefs that the inputs should be a little beyond students' current level (i+1), and complemented with a Socratic questioning method, the inputs hardly involved novel contents. Most of the instructor-initiated questions sought for students' knowledge and comprehension skills. Besides, the instructors denied a separate time for students to read the passages before doing the writing activities. Similarly, the explicit introduction of CT skills was not prevalent in the writing classes. The correlation result, on the other hand, indicated a strong positive association among students' CT performance, writing performance, and SPPCTW. The SPPCTW sub-scales (CI, IM, NWA, SFP) significantly predicted students' CT and writing performances, respectively. The result showed student-related factors: negative perceptions towards writing, negligence of CT-oriented activities, and poor writing competence. The instructor-related factors included limited CT ability, negative perceptions of CT skills promotion, and a tendency to content coverage. Situational factors related to large class sizes, time constraints, and inadequate material preparation were the other obstacles. Therefore, it was recommended that instructors should reconsider their beliefs and reflect on their practices. Further studies should investigate sources of instructors' beliefs and students' perceptions and their implementation of CT skills in writing lessons.

TABLE OF CONTENTS

ACKNOWLEDGEMENTS i
ABSTRACT ii
TABLE OF CONTENTS iii
LIST OF FIGURES vii
LIST OF TABLES viii
LIST OF ABBREVIATIONS viiii
CHAPTER ONE: INTRODUCTION 1
1.1. Background of the Study 1
1.2. Statement of the Problem 8
1.3. Objectives of the Study 12
1.4. Research Questions 12
1.5. Significance of the Study 13
1.6. Scope of the Study 14
1.7. Limitations of the Study 14
1.8. Operational Definition of Key Terms 15
CHAPTER TWO: REVIEW OF RELATED LITERATURE 17
Introduction 17
2.1. The Concept and Components of Critical Thinking 17
2.2. Controversies on the Integration of CT with Language Teaching 26
2.3. The Nature and Purpose of Writing at University 31
2.4. The Relationship between Critical Thinking and Writing 34
2.4.1. Writing as a Means to Improve Critical Thinking 36
2.4.2. Critical Thinking as a Means to Enhance Critical Thinking and Writing Abilities 38
2.5. CT Promoting Strategies in Writing Classes 40
2.6. Teachers' Beliefs, Practices, Students' Performances, and Contextual Factors 51
2.6.1. The Nature of Teachers' Beliefs 51
2.6.2. Teachers' Beliefs and Practices 53
2.6.3. Teachers' Beliefs, Practices, and Students' Performances 55
2.6.4. Teachers' Beliefs and Practices in Promoting Students' CT in Language Learning Class 57
2.6.5. Contextual Factors on the Promotion of CT 59

2.7. Previous Studies on Teachers' Beliefs and Practices in Promoting Students' CT Skills 61
2.8. Conceptual Framework of the Study 66
Conclusion 72
CHAPTER THREE: RESEARCH DESIGN AND METHODOLOGY 73
Introduction 73
3.1. Research Design 73
3.2. Data Sources (Research Site and Participants of the Study) 75
3.3. Data Collection Methods 79
3.4. Reliability and Validity of the Instruments 90
3.5. Data Collection Process 96
3.6. Data Analysis 97
3.7. Trustworthiness of the Study 99
3.8. Ethical Consideration 100
3.9. Summary of the Pilot Study 101
CHAPTER FOUR: FINDINGS AND DISCUSSION 104
Introduction 104
4.1. Instructors' Beliefs about Promoting Students' CT skills 105
4.1.1. Instructors' Beliefs about the Interpretation of CT and its components 105
4.1.2. Instructors' Beliefs about the relevance of CT skills in the Writing Competence of university Students 106
4.1.3. Instructors' Beliefs about the CT Promoting Instructional Mechanisms in Writing Classes 108
4.1.4. Instructors' Beliefs about the Nature of CT Promoting Writing Activities 112
4.1.5. Instructors' Beliefs about CT promoting Feedback Provision 114
4.2. Instructors' Practices in Promoting Students' CT Skills 116
4.2.1. Classroom Interaction (CI) 116
4.2.2. Instructional Mechanism (IM) 119
4.2.3. Nature of Writing Activities (NWA) 122
4.2.4. System of Feedback Provision (SFP) 126
4.3. Instructors' Beliefs about Students' CT and Writing Performances and Students' Performances 128
4.4. The Association between Instructors' Practices in Promoting Students' CT as Perceived by Students and Students' CT and Writing Performances 136

4.5. Factors Influencing Instructors' Practices 139
4.5.1. Student-related factors 139
4.5.2. Instructor-related Factors 141
4.5.3. Situational Factors 141
4.6. Discussion 143
CHAPTER FIVE: SUMMARY, CONCLUSION AND RECOMMENDATIONS 153
5.1. Summary 153
5.2. Conclusion 155
5.3. Recommendations 158
REFERENCES 161
APPENDICES 186
Appendix A: Classroom Observation Guideline 186
Appendix B: Interview Guide for Instructors 189
Appendix C: Students' Perceptions of the Promotion of CT in Writing (SPPCTW) 190
Appendix D: Evaluation Criteria for Writing Skill 194
Appendix E: Evaluation Criteria for CT in Writing 197
Appendix F: Writing Activity Evaluation Rubric 232
Appendix G: Observation Guideline-Based Review 234
Appendix H: Observation Report (through field note) 238
Appendix I: A Sample of Pre-Observation Interview (POI) 244
Appendix J: A Sample of Stimulated Recall Interview (SRI) 249
Appendix K: A Sample of Interview Transcript 253
Appendix L: A Sample of students' Essay writing 256

PUBLICATIONS

1. The Promotion of Critical Thinking in Writing Classes: University Students' Perceptions and Critical Thinking Performance in Writing
2. Exploring Instructors' Beliefs and Practices in Promoting Students' Critical Thinking Skills in Writing Classes

LIST OF FIGURES

Figure 1. *The relationship among instructors' beliefs, practices, and contextual factors*..... 71

LIST OF TABLES

Table 1. *Critical thinking skills models* 20
Table 2. *Demographic information of the participants* 78
Table 3. *A Description of Observation Sessions* 80
Table 4. *Description of the SPPCTW* 85
Table 5. *Revision of Students' Questionnaire* 94
Table 6. *Descriptive Statistics- CI* 116
Table 7. *Observation Result-CI* 117
Table 8. *Descriptive Statistics- IM* 119
Table 9. *Observation Result-IM* 120
Table 10. *Descriptive Statistics- NWA* 122
Table 11. *Observation Result-NWA* 122
Table 12. *Descriptive Statistics- SFP* 126
Table 13. *Observation Result- SFP* 126
Table 14. *Descriptive Statistics of Students' CT Performance in Essays 1 and 2* 129
Table 15. *Students' general CT performance in Essays 1 and 2* 132
Table 16. *Paired samples t-test of students' CT performance in Essay 1 and Essay 2* 131
Table 17. *Descriptive Statistics of Students' writing performance in Essays 1 and 2* 132
Table 18. *Students' general writing performance in Essay 1 and Essay 2* 135
Table 19. *Paired Samples t-test of students' writing performances in Essay 1 and Essay 2* 133
Table 20. *The correlation result* 136
Table 21. *The multiple regression results of SPPCTW and SCTP* 135
Table 22. *The multiple regression results of SPPCTW and SWP* 136

LIST OF ABBREVIATIONS

CT	Critical Thinking
POI	Pre Observation Interview
SRI	Stimulated Recall Interview
M Int.	Main Interview
SPPCTW	Students' Perceptions of the Promotion of CT in Writing
ELIC	English Language Improvement Center
IT	Information Technology
ONS	Other Natural Science
OSS	Other Social Science
PE	Pre-Engineering

CHAPTER ONE: INTRODUCTION

1.1. Background of the Study

The English language has brought a decisive impact on various aspects of human life. Signifying the influence of English, Kachru (1986 cited in Hinkel, 2011) states that "knowing English is like possessing the fabled Aladdin's lamp, which permits one to open, as it were, the linguistic gates to international business, technology, science, and travel. In short, English provides linguistic power" (p.1). The prominence of the language in accomplishing tasks in different sectors is no exception in Ethiopia. Regardless of its eminence in serving as a medium of communication in various media outlets, international and diplomatic arenas, and in the education sector, possessing CT abilities has become a requisite to operate the language competently for the required purpose.

The English language dominates communications carried out on the internet, newspapers, magazines, scientific journals, and books. For instance, among the various print media in Ethiopia, Addis Standard, Addis Fortune, and Ethiopian Herald are some of the magazines and newspapers that are being printed in English. Adapting to the modern lifestyles, science, and technology introduced via various communication media, however, requires thinking critically to make appropriate decisions/judgments and examine for contextual compatibility. Similarly, given the status quo of the English language in scientific journals, articles, and books, it has become a tacit requirement to execute CT skills by using the language. CT underlies the ability to share substantiated scientific information, convey thoughts logically, defend perspectives or assumptions, and propose alternative ideas, plans, or strategies. Equally, manipulating this complex information demands the use of English, which extends to the ability to analyze and evaluate the credibility and relevance of information.

Moreover, as a means of communication, English facilitates various international relations, and it is one of the priorities to compete in the workforce. Several international conferences concerning political, economic, and sociocultural issues are hosted in Ethiopia. In this regard, mastery of English that instills CT skills is indisputable to preserve a prestigious stance in the socio-political arena known for discussions/ arguments on issues, arriving at decisions, and maintaining diplomatic relations. The English language is the route to strengthen economic and cultural ties among countries. Besides, knowledge of English is compulsory to work in several sectors where

English is an official language, for example, international organizations, NGOs, business firms, banks, hotels and tourism, and international travel. Nonetheless, the execution of CT abilities instead of a reliance on a mere knowledge of the language helps to function in the ever-advanced and dynamic working sectors in which a proliferation of information, and complex duties griped a dominant position.

By and large, the role of the English language in the Ethiopian education sector is indispensable. Producing learners, who can efficiently adapt to the fast-paced complex environment, is the crucial goal of teaching the language in Ethiopia (Ministry of Education- (MoE) 2009, 2013). In other words, learners, who are skilled in using English to analyze, synthesize, and evaluate information and scientific facts, propose thoughtful solutions, and make appropriate decisions are needed. In an attempt to accomplish this goal, therefore, learners are taught English as a compulsory subject from primary up to tertiary level. It serves as the medium of instruction starting from the secondary level except in some areas (e.g., Addis Ababa, Gambella, SNNPR) where English is used as the medium of instruction starting from either grade five or seven (Heugh et al., 2007; MoE, 2009; Vujich, 2013).

The impact of the English language in tertiary education becomes more pronounced since mastery of the language contributes to academic success. Academic success in university demands learners to endure the challenges of understanding contents in English-based materials and embrace independent learning skills to communicate efficiently one's understanding through English. In addition to the vocabulary and grammatical competencies, the four skills (listening, speaking, reading, and writing) are, therefore, indispensable for students to strive for excellence. This is evident in task requirements such as making oral presentations, listening to lectures and taking notes, conducting debates, and accomplishing project works (MoE, 2013).

Regardless of the relevance of proficiency in the English language in general, students' performance in writing is a requisite to accomplish studies in universities in Ethiopia. Writing serves as a means of learning different subject matters. Students' progress in learning becomes noticeable as they reflect their thoughts through writing, which then can be examined and modified (Coffin et al., 2003; Meseret, 2012; Renandya & Widodo, 2016). Academic learning in university, therefore, requires students to spend ample time composing complex written assignments (Crème & Lea, 2003) in the form of essays, reviews, term papers, reports, and senior student projects

(Geremew, 1999; Mesfin, 2013; Tewodros, 2016). In essence, these types of tasks demand students to advance their familiarity with a multitude of knowledge through analyzing, evaluating, and synthesizing ideas. This process of gaining knowledge and developing ideas through writing signifies the centrality of written language in university.

The role of writing, in the academic life of university students, heightens since it is used as a tool to exhibit intellectual independence that is highly valued in university. Breeze (2012), in this regard, asserts that "within the university context, learning to write is tantamount to learning to think, to gaining that intellectual maturity which constitutes a primary aim of tertiary education" (p.3). Independent learning that is advocated in the curriculum for universities in Ethiopia (MoE, 2013) creates a platform to exercise intellectual independence in written products. Intellectual independence manifests as learners attempt to communicate knowledge, thought, information, and form beliefs, and values free from the influence of outsiders (Oliver, 2007). Intellectually independent students are mainly guided by their rationality; their recognition of reality dictates or controls their thoughts and values. Hence, they convey their ideas through writing instead of repeating existing information.

The reality that written language is the most embraced criterion in students' future professional and career prospects ascertains the value of writing performance in university. Being on the brink of entering the workforce, university-level learners are assumed to improve their writing to meet the requirements of the job market. The ability to communicate ideas or thoughts in a clear, precise, and comprehensible way in writing is an essential aspect of being competitive (Graham, 2008; Piršl et al., 2011). In other words, besides elucidating points related to discipline knowledge, learners' capability to explain their contribution to knowledge demands better writing performance. These reasons make writing the center of attention in university.

Given the centrality of writing in academic learning in tertiary education, achieving the requirements of written tasks inevitably involves a writing competence that embraces CT skills. Matthews and Lally (2010) argue that "writing, thinking, and reasoning are inseparable. If students reach university, they will be expected to demonstrate critical thinking when they write academic essays or reports within their chosen discipline" (p. 137). CT indicates the ability to make analysis, synthesis, and evaluation of ideas, assumptions, or perspectives to refine thinking which in turn assists in efficiently composing texts. Vallis (2010) argues that “Critical thinking is designed to

help writers to recognize the way in which writing follows from thinking, not by memorizing a formula, but by understanding that relationship. Critical thinking is a series of strategies designed to help you pay attention to the way you think through a given idea" (p.5). This signifies the inseparability of writing and CT.

Accomplishing written tasks with acceptable quality, in most cases, requires demonstrating CT abilities. Practitioners (Geremew, 1999; Tewodros, 2016) agree that a writing performance beyond mastery of facts and replication of information is indispensable to thrive in university and future endeavors. Learners are expected to develop texts, which reflect their logical argument with valid evidence and examples instead of mere opinions (Clark, 2003). In other words, students' ability to incorporate alternative ideas with adequate clarity, precision, depth, and breadth in a given topic is more valuable than a simple description. This type of writing demands operating CT components such as the ability to analyze and synthesize concepts, evaluate assumptions or claims, examine the strengths and weaknesses of alternative ideas, and decide on the credibility of information. As Kefelegn (2003) states, writing that displays learners' perspectives on the existing matter is appreciated at university.

The quality of learners' written products is dependent on the way ideas are conveyed in writing. Students' writing in universities is expected to follow the academic tone and maintain the intended topic. The ability to retain linguistic accuracy and use appropriate spelling, punctuation, terms, and expressions in writing is a highly valued writing competence. Besides, communicating viewpoints in a clear, organized, or coherent manner is the utmost area of emphasis in students' writing (Geremew, 1999; Haregewain, 2008; Tewodros, 2016). This writing competence, on the other hand, compels students to execute CT to evaluate their writing in terms of the development of ideas and the effectiveness of its presentation (Iman & Angraini, 2018).

Writing lessons are delivered to equip students with the required level of writing competence and help them carry out their academic careers in university. In this regard, the English language departments across Ethiopian universities offer two common courses- Communicative English Language Skills I and Communicative English Language Skills II- to all first-year students. The courses are designed following an integrated-skills approach that aims at enhancing students' communicative competence. Therefore, the language skills are presented in combination instead of in isolation. Yet, the first course (Communicative English Language Skills I) mainly focuses on

listening and speaking skills. Reading and writing skills are practiced to a limited extent in this course. In contrast, relatively more writing lessons are incorporated in each unit in Communicative English Language Skills II. In this course, students are expected to practice different types of paragraphs and essay writing (MoE, 2019, 2020).

The effectiveness of the writing lessons and activities in the courses, however, is influenced by instructors' classroom decisions and beliefs about the teaching/learning of writing. Instructors are the principal actors in the teaching-learning process. Their classroom practices in addition to their beliefs about varied issues, for example, the concept of students' CT and writing abilities determine the learning condition. Essentially, instructors' classroom practices are assumed to conform to the principles in the educational curriculum in Ethiopia. Promoting students' CT skills in classrooms is one of the pertinent areas in the Growth and Transformation Plan (GTP) 2010/15 (MoE, 2011). This practice, nonetheless, is dependent on the implementation of a learner-centered approach. Illuminating the practices of promoting students' CT abilities at the heart of the teaching-learning process, the educational curriculums throughout primary up to university advocate the necessity of using a learner-centered approach (MoE, 2009, 2013, 2018). Consequently, encouraging instructors to promote students' CT skills in classrooms through employing a learner-centered approach is the decisive area of emphasis in the Higher Diploma Program (HDP) - in-service training provided to all instructors in Ethiopian universities (MoE, 2011).

In the curriculum for universities in Ethiopia (MoE, 2013) as well as in the Higher Diploma Program (HDP) (MoE, 2011), instructors are supposed to facilitate learning, encourage independent learning, create conducive writing classrooms, and employ meaningful tasks. As facilitators of the learning process of writing, instructors are assumed to ensure instilling both what to think (content knowledge) and how to think (thinking critically) aspects (Crawford et al., 2005; Schafersman, 1991). Scholars (e.g., Cumming, 2006; Schoonen et al., 2009) agree that providing exposure to students to understand the basics of writing is a foundation for better writing ability. Compelling learners adapt to knowledge transmission, recitation, or memorization of facts about writing, nonetheless, restricts their opportunity to experiment with the learned aspects. Learners are required to be empowered to demonstrate CT skills in writing using the writing skills content they acquired.

The facilitating role of instructors is manifested through encouraging independent learning in writing classes. According to the principle of the learner-centered method, students are the owners of their learning. This indicates that instructors are responsible for encouraging students to think for themselves by promoting students' CT skills in writing classes. Several intellectuals (Dong, 2015; Nejmaoui, 2019; Sharadgah et al., 2019) challenge the delusive expectation that students enhance their writing performance while instructors think on behalf of learners. Instead, instructors' practices of creating a classroom environment where students exercise CT skills-practice analysis, synthesis, and evaluation- contribute to students' improvement in writing performance. In such a classroom, they engage in constructing reasonable texts at the expense of recklessly accepting and reflecting information. In other words, students apply an analytical approach toward ideas, see things from different perspectives, and construct meaningful ideas on a given topic. Students, thus, monitor their writing performance as they are encouraged to manipulate CT skills.

The endeavor to create a conducive writing classroom, where students exercise independent learning, demands instructors to implement more than a single instructional strategy. Implementing optional teaching strategies helps to address different learning styles, and permits learners to drive meaning out of their learning (MoE, 2009), which at the same time nurtures the execution of CT skills. Many scholars (Buranapatana, 2006; Dwee et al., 2016; Fahim & Mirzaii, 2014) explain that collaborative learning including group discussion, dialogue, pair work, peer evaluation/review, and group work supports designing a writing classroom in which students' CT skills are promoted. Others (e.g., Alfares, 2014; Daud, 2012; Liu, 2018; MoE, 2011) signify the value of self-reflection, instructor feedback, and questioning.

Furthermore, implementing meaningful tasks in which students perform individually or in collaboration is the other role instructors are expected to undertake (MoE, 2002, 2013). Authentic tasks that challenge students to analyze, synthesize, and evaluate facilitate the enhancement of writing performance since such activities involve aspects of CT skills. When students engage in the writing process, they secure the opportunity to identify and evaluate alternative ideas. They question perspectives and develop convincing texts by synthesizing ideas as the activity is meaningful to them (Khairuddin et al., 2021). Writing activities such as paraphrasing, note-taking, summary writing, reflective writing, essay writing, portfolio writing, and seminar paper writing

assist the practices of promoting students' CT skills and thereby improve their writing performance (Arju, 2010; Liu, 2018; Mangena, 2003).

The advocacy of employing appropriate instructional strategies and meaningful activities in writing classes in Ethiopian universities is not a novel phenomenon. This, however, may not entirely determine instructors' decisions in classes. Several scholars (e.g., Borg, 2003; Breen et al., 2001; Pajares, 1992) maintain that classroom practices are influenced by instructors' beliefs. Instructors' beliefs, which are impacted tacitly by their prior learning experience, educational training, and teaching experience, dictate their actions in the classroom context. As Gemechis (2020) explains, instructors' beliefs, which are mainly reflected through their classroom practices, "are a critical foundation for students to receive the knowledge and skills that they need to fulfill their potential" (p.59).

The beliefs instructors hold about the overall teaching and learning of writing skills and the promotion of students' CT skills in writing classes affect their actual practices that inversely influence students' outcomes. For example, instructors' beliefs about CT, the relationship between CT and writing skills, the instructional mechanisms, the roles of students and instructors in writing class, the students' CT and writing performances, and the instructional context impact their classroom practices. This means the way students are taught has a salient role in determining students' outcomes- CT and writing performances (Fives & Buehl, 2016; Nxasana et al., 2023).

Knowledge remains little about university instructors' beliefs and practices in promoting students' CT skills in writing classes. A considerable amount of study (e.g., Daud, 2012; Dong, 2015; Lin, 2014) has been conducted emphasizing the effect of CT instruction on students' CT and writing abilities. On the contrary, there is a dearth of large-scale studies (e.g., Marijic & Romfelt, 2016; Meng, 2016) related to instructors' beliefs and practices. Marijic and Romfelt (2016), for instance, assessed English teachers' attitudes toward CT and methods of assessment in Sweden's upper secondary schools. However, the study did not give particular attention to respondents' attitudes towards CT in integration with writing skills. Likewise, Meng (2016) studied the perspectives of primary school EFL teachers about the significance of incorporating CT into the curriculum. Yet, the study emphasized reading skills in connection with CT. This indicates the need to explore the beliefs and practices of instructors toward promoting students' CT skills in the context of writing classes at the university level.

Similarly, numerous local studies (e.g., Alamirew, 2005; Ebabu, 2013; Geremew, 1999; Haregewain, 2008; Meseret, 2012; Mesfin, 2013; Tewodros, 2016) have been conducted related to the teaching of writing skills. For instance, Alamirew (2005) studied the perception of writing, writing instruction, and students' writing performance. In his study, Alamirew has emphasized how writing is taught as well as teachers' beliefs about the teaching and learning of writing and their self-efficacy beliefs. He has also focused on learners' perceived self-efficacy, attitudes about the usefulness of EFL writing, and their beliefs about the teaching and learning of writing. The study, however, did not give explicit attention to the issue of promoting students' CT skills in writing classes when dealing with teachers' beliefs and practices.

Likewise, Meseret (2012) investigated instructors' and students' perceptions and practices of task-based writing. The study has focused on instructors' and students' perceptions of the writing tasks in the English course material, and how the classroom practices are impacted by these perceptions. Mesfin (2013), on the other hand, explored the implementation of the process approach to the teaching/learning of the basic writing skills course. The researcher has given attention to instructors' and learners' perceptions about the teaching methods in writing classes. The study has also concentrated on the extent instructors implemented the process approach and factors that impact the use of the process approach. Like Alamirew's study, the issue of instructors' beliefs and practices related to the promotion of students' CT skills in writing classes was not a concern in Meseret's and Mesfin's studies.

In general, the issue of instructors' beliefs and practices in promoting students' CT in writing classes at university has failed to obtain any particular consideration in these studies. Therefore, the present study might have a noteworthy contribution.

1.2. Statement of the Problem

Academic writing is a daunting enterprise, especially in a context like Ethiopia where students are taught English as a foreign language. It requires the logical processing of ideas rather than a mere collection of words, expressions, language forms, and paragraphs (Vallis, 2010). Breeze (2012) also adds that "writing is much more than the generation of words on a page, or the production of grammatically correct sentences in acceptable handwriting" (p. 3). Particularly at the tertiary level, writing demands much cognitive processing power- critical thinking ability. That means the ability

of learners to refine thinking through analyzing, synthesizing, and evaluating ideas when developing a text.

Despite the challenging nature of writing, students who enter universities are presumed to attain a better level that results in performing complex written tasks. They are expected to compose pertinent texts with a reasonable level of accuracy and fluency. As different practitioners (Meseret, 2012; Mesfin, 2013; Tewodros, 2016) indicate, students' writing needs to reflect comprehensible, well-organized, and logical thought to meet the requirements of a university education. Similarly, Matthews and Lally (2010) elucidate the requirement that students demonstrate sound reasoning when writing academic essays or reports since CT is the expected ability of students in universities.

Contrary to the expectation of the ability to accomplish demanding writing tasks, the writing performance of first-year university students was found inadequate as evidenced in the researcher's experience and empirical findings. The present researcher's experience in teaching writing at a university has divulged students' weaknesses in properly conveying ideas in writing. Apart from problems in using appropriate linguistic structures and words, students are impotent to organize and develop their writing with a clear purpose in mind. Students' texts, in most cases, signify limitations in constructing plausible reasoning with enough supporting details, examples, and evidence. A lack of clear and consistent thought patterns is evident in most of the students' texts. Besides, insufficiency in the ability to present texts with precision, complexity, and coherence is widely prevalent. It has become common, beyond this researcher's professional experience, to hear university instructors complaining about students' writing abilities. They mention limitations they observed in students' writing in response to assignments and exams in their respective disciplines. Even after completing their undergraduate-level learning, new graduates lack the writing skills required to pass the written exam to join different employment sectors (Amlaku, 2010; Meseret, 2012; Mesfin, 2013; Tewodros, 2016).

In addition to professional and personal observations, the findings of numerous studies revealed weaknesses in the writing performance of students in universities. Findings in Geremew's (1999) study, for instance, indicated students' difficulties in recognizing the pertinence of specific information to the central idea of a particular topic in their writing. Likewise, Haregewain (2008) pointed out that students in universities have grammatical inaccuracies in their writing despite their

years of familiarity with the grammatical aspects of the language in lower classes. Moreover, along with the misuse of mechanics and expressions, it is challenging for university students to convey ideas in an organized and logical manner (Ebabu, 2013; Tewodros, 2016; Yonas, 1996). Generally, as noted in different studies, the writing skills of first-year University students are by far less than the level required.

Although students' difficulties in writing are attributed to various factors, the way students are taught writing contributes to the problem. Instructors' beliefs and their practices related to using instructional strategies, the nature of activities, and feedback provision influence students' learning (Fives & Buehl, 2016; Turner et al., 2009). For instance, studies (Alamirew, 2005; Molla, 2009; Solomon, 200; Temesgen, 2008) indicated that writing instruction, particularly in secondary schools, is accompanied by the negligence of providing feedback, a focus on correcting students' grammatical and vocabulary errors, and attention to the teaching of the theoretical aspects of writing. Other studies (Mesfin, 2013; Yonas, 1996) relate students' insufficient writing skills to instructors' poor implementation of the process approach in university writing classes. Meseret (2012), on the other hand, illustrated instructors' reluctance toward the use of task-based writing.

Implying the potential to reduce students' writing difficulties, various educators and researchers (e.g., Asgharheidari & Tahriri, 2015; Miri & Azizi, 2018; Orszag, 2015; Sopiani et al., 2019; Toshpulatova & Kinjemuratova, 2020) underscore the relevance that instructors hold encouraging beliefs and practices in promoting students' CT in writing classes. They advocate instructors' focus on encouraging students to improve their writing by encouraging them to analyze, synthesize, and evaluate ideas when composing. The act of writing as Manchon (2009) asserts demands students to coordinate both cognitive and linguistic resources. The cognitive aspect of writing, which embraces CT abilities, facilitates the process of constructing ideas and converting them into language. Effective written communication, thus, emanates from thinking critically or the ability to analyze, synthesize, and evaluate ideas (Paul & Elder, 2006).

The promotion of students' CT skills in writing classes indicated significant impacts on students' writing performances as implied in the findings of various studies (e.g., Dong, 2015; Lin, 2014). The studies revealed that better writing performance stems from students' improved CT skills. Students were able to develop thoughtful ideas and better understanding when communicating

ideas as a result of teachers' promotion of students' CT abilities (Golpour, 2014; Sharadgah et al., 2019; Zhao et al., 2016). Others (Hughes, 2014; Lin, 2014) implied students' ability to coordinate linguistic repertoires and expressions to construct coherent, organized, meaningful, and extended texts when they exercise CT skills. Similarly, Dong (2015) and Nejmaoui (2019) explained that students who practiced CT skills attained the ability to analyze problems, identify valid reasons, question ideas, and incorporate evidence. The students also developed the ability to establish a well-formulated thesis statement and construct accurate and precise content. These practices ultimately made students' written products incorporate logical ideas.

Given the impact of promoting students' CT skills in writing classes, the main focus lies on instructors' use of different teaching strategies and activities that create a conducive learning situation for learners to exercise CT skills. Numerous studies (Arju, 2010; Dwee et al., 2016; Meng, 2016; Snyder & Snyder, 2008), in this regard, explicated the possibility of reinforcing CT skills by implementing multiple teaching strategies. These include collaborative learning (e.g., peer assessment, group activities, dialogue), questioning (instructor and/or peer initiated), and writing assignments (e.g., summary writing, reflective writing, essay writing). Likewise, activities that trigger the execution of CT abilities such as analyzing and synthesizing ideas, and evaluating and reflecting on self and others' written works are all considered essential.

Instructors' decision to promote students' CT skills in writing classes, nevertheless, is mainly determined by their beliefs about the promotion of students' CT abilities. As indicated in TALIS (2013), "teachers tend to structure their classrooms according to their beliefs about teaching and learning, including how they should carry out their work, how their students learn, and how to structure lessons and classrooms to enhance learning" (OCED, 2014, P.151). For instance, Warburton and Torff (2005) argue that teachers' beliefs about students' CT abilities affect the teachers' preference for activities. That means teachers assign CT-stimulating activities to high-achieving students, while the low-achieving students perform simple activities. The findings of different studies (e.g., Gregory, 2011; Kanik, 2010; Meng, 2016) indicated how teachers' beliefs about the promotion of students' CT skills affect their classroom decisions in terms of the choice of teaching strategies, activities, and the overall nature of the classroom environment. Consequently, it is relevant to explore university instructors' beliefs and practices in promoting students' CT skills in writing classes to detect their thought processes and instructional decisions.

In this regard, a negligible number of large-scale studies (e.g., Marijic & Romfelt, 2016; Meng, 2016) are available. These studies, however, neglected the investigation of instructors' beliefs and practices of promoting students' CT skills in the context of writing skills instruction. Besides, the exploration of students' CT and writing performances along with instructors' beliefs and practices did not obtain any concern.

1.3. Objectives of the Study

1.3.1. General Objective

The main objective of this study was to investigate instructors' beliefs and practices in promoting students' critical thinking skills in university writing classes, and students' critical thinking and writing performances.

1.3.2. Specific Objectives

The specific objectives of the study were to:

1. identify instructors' beliefs about promoting students' critical thinking skills in university writing classes.
2. examine how instructors' stated beliefs are reflected in their practices in promoting students' critical thinking skills in university writing classes.
3. investigate how instructors' beliefs about students' critical thinking and writing performances and their practices in promoting students' critical thinking skills associate with their students' performances.
4. identify factors that influence instructors' practices in promoting students' critical thinking skills in university writing classes.

1.4. Research Questions

This research attempted to address the following research questions:

1. What beliefs do instructors hold about promoting students' critical thinking skills in university writing classes?
2. How are instructors' stated beliefs reflected in their practices in promoting students' critical thinking skills in university writing classes?

3. How do instructors' beliefs about students' critical thinking and writing performances and their practices in promoting students' critical thinking skills associate with their students' performances?
4. What factors influence instructors' practices of promoting students' critical thinking skills in university writing classes?

1.5. Significance of the Study

Numerous concerned bodies benefit from the findings generated from this study. It encourages English language instructors at the university level to build their capacity in writing skills instruction by examining their beliefs and practices in enhancing students' writing skills. More specifically, the study enables them to be conscious of their thoughts about the role of CT in writing and broadens their understanding of the various CT-promoting instructional mechanisms, writing activities, and feedback provisions. Instructors tend to reconsider their classroom decisions or practices in promoting students' CT aiming to identify strengths and gaps and improve their subsequent classroom practices.

The study also gives insights to teacher educators. They get pedagogically useful information about instructional strategies that are used to promote students' CT as possible means to enhance students' writing skills. Consequently, teacher educators make prospective instructors aware of the concept of CT, its connection with writing skills, and the various pedagogical approaches. Besides, based on the detailed accounts of factors related to the promotion of students' CT in writing classes, teacher educators inform prospective instructors about how to handle potential hindering factors.

Similarly, the results of the study provide input to curriculum designers and material writers. Curriculum designers obtain insights concerning the role of CT in students' writing skills as well as students' current performance levels in writing. This instigates them to search for mechanisms that enable students to explicitly learn to demonstrate CT in writing classes and create sufficient opportunities for students to learn writing skills thoroughly. Material developers generate substantial input about how to efficiently promote students' CT in writing classes and put elaborated directions that insist writing instructors employ CT-promoting approaches to teach writing skills. Besides, material writers endeavor to incorporate possible CT-promoting techniques

that students employ to heighten their writing skills. They also strive to refine the quality of writing activities as suitable to stimulate students' CT skills.

In general, for other researchers, it could be a source to generate core issues that could be a starting point for further and higher-level investigation.

1.6. Scope of the Study

The study was carried out with the involvement of respondents selected from Wolkite and Debre Tabor Universities. Wolkite University was preferred for pilot testing. The university was purposively selected due to its equivalence with Debre Tabor University where the main study was carried out. Both universities are third-generation universities so they can be contextually comparable in terms of the quality of human resource as well as university facilities. Demarcating the main study to a single university (i.e., Debre Tabor University) helped to efficiently manage the data since the qualitative approach dominates the study.

The study was also delimited to instructors who offer the Communicative English Skills II course. The course was preferred since it dedicated relatively better coverage to writing skills. This helped the researcher to investigate instructors' practices in writing classes and their beliefs concerning promoting students' CT skills in writing lessons. In addition to instructors, students have participated. Students who were involved in the study were, however, limited to those who were taught by the target instructors. The main intention of including these students was to generate data concerning the selected instructors' practices when teaching writing lessons. The study, thus, embraced the responses of instructors as well as their students.

Moreover, analyzing contents in teaching materials was one part of the study. This process was, however, delimited to a material that was used to teach writing. The module of the communicative English language skills II Course was the material that was analyzed. The analysis was done by giving particular emphasis to writing activities that the participants assigned to students during the observed writing sessions.

1.7. Limitations of the Study

In spite of the invaluable significance of this study in multiple dimensions, it has some limitations. Certain drawbacks are expected in a rigorous research project carried out by a single researcher

under the influence of time constraint to address all the variables mentioned below. The study explored instructors' beliefs related to the promotion of students' CT skills in writing lessons. Nonetheless, the relevance of the study would have been exceeded if the study involved an investigation of the sources of instructors' beliefs. Identifying these sources would have been helpful for the researcher to reason out the underlying factors concerning the explicit and implicit beliefs the instructors reflected.

Similarly, although students' perceptions of instructors' practices were explored, the study did not consider students' perceptions of CT skills and their implementation of the skills in writing lessons. Apart from the instructors' practices, the students' perceptions might have an impact on their use of the skills, and thereby the improvement of their performances. This might contribute to the thoroughness of the explanation of students' CT and writing performances. The other limitation was related to the evaluation of students' CT and writing performances. The students' performances were examined in light of two different essays. It would have been possible to identify specific instances of students' improvements at the various writing sessions if several students' written works were evaluated.

The limitation of the study further extended to the absence of material evaluation [Communicative English Language Skills II Course]. It is undeniable that valuable insights were generated from the analysis of writing activities that the instructors assigned to students during the observed writing sessions. A broader evaluation of the course material, however, might help to portray the overall nature and quality of the material in integration with instructors' practices of promoting students' CT skills in writing lessons.

1.8. Operational Definition of Key Terms

- **Critical Thinking (CT) -** CT can be interpreted as the ability to make analysis, synthesis, and evaluation of ideas, assumptions, or perspectives to refine thinking that facilitates composing sufficiently developed texts.
- **Critical Thinking Skills/abilities-** are represented by cognitive aspects such as analysis, synthesis, and evaluation.
- **Instructor's Beliefs -** Instructor's Beliefs, in this study, refers to instructors' complex mental representation of consciously and/or unconsciously held idiosyncratic philosophy,

assumption, understanding, and interpretations of experiences concerning CT and writing skills that influence actions in writing classes.

- **Instructors' practices-** instructors' practices refer to instructors' classroom behavior or overall activities associated with the practice of promoting students' CT skills, for example, their use of CT-promoting instructional strategies, CT-oriented feedback/comment provision, use of CT-oriented writing activities, and interaction with students.
- **Analysis-** refers to the ability to classify ideas into different categories or themes and examine the implicit and explicit relationships among ideas and their organization.
- **Synthesis-** refers to the ability to incorporate different ideas, concepts, or points of view to produce a well-integrated or elaborated text.
- **Evaluation-** refers to the ability to assess the quality of one's and peers' (others') ideas in terms of clarity, accuracy, relevance, logicalness, breadth, precision, completeness, fairness, and depth.
- **Writing Performance-** indicates students' ability to efficiently convey their ideas by maintaining the quality of content, organization, vocabulary, language use, and mechanics.
- **CT Performance-** indicates students' CT ability in the essays that are examined in light of CT standards (clarity, relevance, logicalness, accuracy, depth, precision, breadth, and fairness).

CHAPTER TWO: REVIEW OF RELATED LITERATURE

Introduction

The literature review embraces three systematically interconnected themes. The first theme presents detailed explanations of CT and its aspects. The second section contains an elaboration concerning writing skills in integration with CT skills. The third theme incorporates a thorough description of the nature of teachers' beliefs and practices as well as teachers' beliefs and practices in connection with the promotion of students' CT. Empirical studies complement the explanations of issues throughout the sections. The last part provides an elaboration on the conceptual framework of the study.

2.1. The Concept and Components of Critical Thinking

2.1.1. The Concept of Critical Thinking

Critical thinking (CT) has evolved into a prominent issue in varied educational arenas regardless of the elusiveness of the term. Discussions about CT were central during the time of Socrates, Plato, and Aristotle before the contemporary theorists (e.g., Ennis, Facione, and Paul), who endeavored to disclose the concept of CT (Wang, 2017). In disguise with 'Socratic questioning' that emphasized challenging others' beliefs and assumptions, CT dominated the teaching practice of Socrates about 2, 400 years ago (Paul, 1985, cited in Dong, 2015). CT, since then, has become the main agenda of philosophers, cognitive psychologists, and educationists (Dong, 2015). Despite holding a shared understanding of the relevance of CT, scholars (e.g., Facione, 1990; Halpern, 2003; Paul & Elder, 2006) in the disciplines- philosophy, cognitive psychology, and education- explicate different interpretations of CT.

In the philosophical discipline, the conceptualization of CT centers on explaining the peculiarities or qualities of a critical thinker (Lewis & Smith, 1993 cited in Lai, 2011). For instance, Ennis (1985) aligns CT with possessing reflective and reasonable abilities that determine subsequent decisions. He refers to CT as "reflective and reasonable thinking that is focused on deciding what to believe or do" (Ennis, 1985 cited in Lai, 2011, p. 7). The definition barely depicts the features of being reasonable and reflective. In an elaborated way, Facione (1990) defines CT as "purposeful, self-regulatory judgment which results in interpretation, analysis, evaluation, and inference, as well as explanation of the evidential, conceptual, methodological, criteriological, or

conceptual considerations upon which that judgment is based (p. 3)". Unlike Ennis, Facione's definition signals specific CT skills (i.e., interpretation, analysis, evaluation, inference, and explanation) as foundations for decision-making. For Paul and Elder (2006), CT equates with the activity of refining thought. They interpret CT as "the art of analyzing and evaluating thinking with a view to improving it" (p. 4). In congruence with Facione's definition, the 'analysis' and 'evaluation' skills operate to bring the required impact on thinking. Yet Paul and Elder's focus lies on 'thinking about thinking' based on CT standards or criteria (see section 2.1.2.1.2).

The conceptualization of CT in light of the philosophical view, however, encountered criticisms from cognitive psychologists. Sternberg (1986), an advocate of the cognitive psychology tradition, argues that the philosophical stance illuminates 'formal logical systems' that prioritizes competence over performance. This makes the philosophical perspective of CT incompatible with the requirements in classroom contexts. Similarly, Fahim and Mirzaii (2014) contend that the philosophical approach "merely focusing on hypothesized competence viewed in a vacuum, loses sight of real-life performance (p. 5)". Endorsing this view, Lai (2011) signifies the exclusion of the actual thinking process in the philosophical domain. Lai underscores the relevance of unveiling typical strategies for CT instead of describing the ideal critical thinker or the standards of perfect thought.

The description of CT in light of the cognitive psychologists' perspective aims at describing the actual thinking process. Accordingly, Sternberg (1986) elucidates CT as "the mental processes, strategies, and representations people use to solve problems, make decisions, and learn new concepts" (p.3). With minor similarity to Facione's definition, Sternberg aligns CT with the purpose of solving problems, making decisions, and learning new concepts. Halpern (2003), on the other hand, proposes a broader definition of CT. CT refers to:

> The use of those cognitive skills or strategies that increase the probability of a desirable outcome. It is used to describe thinking that is purposeful, reasoned, and goal-directed- the kind of thinking involved in solving problems, formulating inferences, calculating likelihoods, and making decisions when the thinker is using skills that are thoughtful and effective for the particular context and type of thinking task (Halpern, 2003, p.6).

Despite certain resemblances with Facione's and Sternberg's definition of CT, Halpern's definition extends to gaining 'desirable outcomes' by employing cognitive skills. However, the absence of a

clear description of those 'mental strategies' or 'cognitive skills' in Sternberg's and Halpern's definitions makes the interpretation equivocal to conceptualize in educational settings.

Moreover, experts in the educational sector attempted to conceptualize CT in educational settings by associating CT with skills relevant to solve problems and making decisions in classrooms. The emphasis lies in equipping students with CT abilities by reinforcing CT skills (Wang, 2017). The interpretation of CT in the education domain, therefore, comprises both competence and performance orientations (Sternberg, 1986). Providing particular emphasis on academic writing, WPA (2014, cited in Rademaekers, 2018) interprets CT as:

> The ability to analyze, synthesize, interpret, and evaluate ideas, information, situation, and texts. When writers think critically about the materials they use- whether print texts, photographs, data sets, videos, or other materials- they separate assertion from evidence, evaluate sources and evidence, recognize and evaluate underlying assumptions, and read across texts for connections and patterns, identify and evaluate chains of reasoning, and compose appropriately qualified and developed claims and generalizations. These practices are foundational for advanced academic writing (p. 120).

The purpose of CT, in this definition, is connected to composing texts with well-formulated ideas. To achieve this purpose, critical thinkers are assumed to execute CT skills such as analysis, synthesis, interpretation, and evaluation. Similarly, Dong (2015) defines CT as "a mindful application of a structured mode of thinking which aims to improve the quality of thinking to achieve intellectual standards of excellence in L2 written communication" (p. 25). Dong's definition advocates Paul and Elder's (2002) 'elements of reasoning' and 'intellectual standards' in the context of writing. In congruence with the interpretations presented in the context of academic writing (WPA, 2014; Dong, 2015), CT can be interpreted as the ability to make analysis, synthesis, and evaluation of ideas, assumptions, or perspectives to refine thinking that facilitates composing sufficiently developed texts.

Portraying CT using different constructs appeared prevalent following scholars' attempts to describe CT in light of the qualities of a critical thinker or the execution of specific skills or strategies that lead to CT. There also occur variations concerning the manner experts in different disciplines subsume CT as it fits the learning requirements and the outcomes of the field. Amid this disparity, there exists a consensus among scholars concerning the importance of CT. CT

components such as solving problems, judgments, reasoning/logic, and decision appear in most of the definitions of CT.

2.1.2. Components of Critical Thinking

Regardless of the absence of an agreed-upon interpretation of CT, experts (Facione, 1990; Halpern, 2003; Paul & Elder, 2002) agree that CT embraces both cognitive skills and dispositions. In addition to acquiring the CT skills necessary to operate CT, learners are expected to possess the willingness (disposition) to implement the skills in appropriate circumstances (Qing, 2013). Possessing CT skills, however, does not secure the tendency to apply them (Facione, 2000; Jones et al., 1995). Different models of CT skills and dispositions are explicated by intellectuals in the three disciplines (i.e., philosophy, cognitive psychology, and education).

2.1.2.1. Critical Thinking skills

In accordance with the perceived purposes of CT, scholars in the philosophical (e.g., Facione, 1990; Paul & Elder, 2002), cognitive psychology (e.g., Halpern, 2003), and Education (e.g., Bloom, 1956) dimensions present different models of CT skills.

2.1.2.1.1. Facione's (1990) Critical Thinking Skills Model

According to Facione's (1990) model, CT consists of six cognitive skills: *interpretation, analysis, evaluation, inference, explanation, and self-regulation*. These cognitive skills incorporate sub-skills that elaborate the main skill (see Table 1 below). For instance, *Interpretation* is explained as the ability to recognize and explain the main idea in different information sources, experiences, and events. Detecting the implicit or explicit connection among various forms of data, concepts, or accounts in a particular judgment requires *analysis* skill. Likewise, *Evaluation* skill enables an examination of the trustworthiness of information and the validity of claims in the implied or actual meaning of statements. *Inference* skill serves to generate necessary ideas that assist in forming a plausible conclusion, while *Explanation* concentrates on expressing decisions on the basis of specific reasoning and evidence. *Self-regulation,* on the other hand, facilitates the ability to consciously manipulate the process of cognitive activities, the aspects involved, and the outcomes generated.

Facione's model elaborates on the mystified concept of CT as suitable to function in the educational setting (Dong, 2015). According to Facione's (1990) view, the framework of the skills and sub-

skills of CT are prepared to be applicable in different disciplines. The author, nonetheless, declines to claim that the taxonomy competently describes CT with the required depth and breadth. Despite its relevance, Facione's model did not incorporate standards that are used to evaluate the product of CT compared with Paul and Elder's (2002) model.

Table 1. *Critical thinking skills models*

Facione's (1990, p. 7) Model		**Paul and Elder's (2002, p. 87) Model**	
CT skills	**Sub-skills**	**CT skills**	**Sub-skills**
	categorization		Purposes
Interpretation	decoding significance		Questions
	clarifying meaning		Points of view
	examining ideas	Elements of Thought	Information
Analysis	detecting arguments		Inferences
	analyzing arguments		Concepts
	assessing claims		Implications
Evaluation	assessing arguments		Assumptions
	query evidence		Clarity
Inference	conjecturing alternatives		Accuracy
	drawing conclusions		Relevance
	stating results	Intellectual Standards	Logicalness
Explanation	justifying procedures		Breadth
	presenting arguments		Precision
Self-regulation	self-examination		Significance
	self-correction		Completeness
			Fairness
			Depth

2.1.2.1.2. Paul and Elder's (2002) Critical Thinking Skills Model

Paul and Elder (2002) proposed a distinctive model of CT skills. According to Paul and Elder, the central emphasis of CT lies in refining thought to construct well-structured reasoning. As such, the model incorporates *elements of thought* and *intellectual standards*. *'Elements of thought*', which is also called *elements of reasoning*, represents a related concept with what different scholars mention as 'CT skills'. Paul and Elder associate reasoning with establishing the understanding of an issue based on the meaning it carries.

The sub-skills mentioned in the dimension of *Elements of thought* (see Table 1 above) provide a systematic guide to developing reasoning in a particular issue besides understanding formulated reasoning by others. In this regard, *purpose* implies the goal, desire, or need to develop certain reasoning adhering to a *point of view* that regulates the orientation or dimension to reflect the reasoning. The reasoning is established on *concepts* or categories of ideas that involve *questions* based on personal experience of the world in light of one's goals, desires, or needs. *Information* in terms of facts, data, or experience serves to support the *inference,* which is developed based on existing knowledge gained in different ways. In consonance with this, generalizations or *assumption*s are constructed based on the *conclusion.* In general, the ultimate purpose of CT is the application of the reasoning that indicates the *implication*. In line with this, the *conclusion* is used as a baseline to make generalizations- construct *assumption*s. The application of the reasoning that indicates the *implication* is the ultimate purpose of CT (Paul & Elder, 2002).

The reasoning, however, has to be scrutinized to ensure its quality. For this purpose, *Intellectual Standards* (see Table 1 above) serve as tools used to examine the strengths and weaknesses in thinking- applied to the components of the *elements of thought*. According to Paul and Elder's perspective, these standards facilitate the attempt to 'think about thinking' and thereby refine thought. Unlike the models proposed by other scholars (e.g., Facione, Halpern, Bloom), Paul and Elder attempt to make CT more tangible and susceptible to measurement through *Intellectual Standards.* The precise feature of the model assists in developing an ample understanding of implied meanings beneath the surface meaning of a particular thought. Like Facione's model, most researchers (Dong, 2015; Wang, 2017) affirm the compatibility of Paul & Elder's model in the context of EFL.

2.1.2.1.3. Halpern's (2003) Critical Thinking Skills Model

Halpern (2003, p. 20) proposed a different model that incorporates five types of CT skills such as *verbal reasoning, argument analysis, hypothesis testing, livelihood and uncertainty, and decision-making*. *Verbal reasoning*, according to Halpern, indicates the use of valid statements to formulate a plausible conclusion, while *argument analysis* emphasizes identifying premise, conclusion, assumptions, qualifiers, and counterarguments to comprehend the gist of an argument. *A hypothesis* is considered a perception of the connection between two or more existing things in the world. Thus, Halpern (2003) describes *hypothesis testing* as a "way of finding out about the way the world works" (p. 232). *Livelihood and uncertainty,* on the other hand, are the ability to make a probabilistic judgment or decision on matters when generating uncertain evidence. The author links *decision-making* with the ability to make choices and examine the potential pitfalls and risks involved in the preference.

Halpern's (2003) category comprised elements that best describe the concept of CT. The skills, however, seem rather broad that need further elaboration and classifications. As a result, extra refinement seems crucial to make the taxonomy feasible in the educational setting.

2.1.2.1.4. Bloom's (1956) Critical Thinking Skills Model

In the educational continuum, researchers (e.g., Báez, 2004; Dong, 2015) commonly mention Bloom's (1956) taxonomy concerning the concept of CT. The taxonomy, however, was not designed aiming at promoting CT. It was instead used as a framework that serves to organize educational objectives in a practical structure that progresses from simple/concrete to abstract/complex (Wang, 2017). The taxonomy consists of six levels of thinking: *knowledge*, *comprehension*, *application*, *analysis*, *synthesis*, and *evaluation*. These elements, according to Bloom, are categorized into two: the lower order (i.e., *knowledge*, *comprehension*, *application*) and the higher order (i.e., *analysis*, *synthesis*, *evaluation*). The lower-order thinking demands the skills of knowledge and remembering, while higher-order thinking requires sophisticated skills. Despite the hierarchical order of the skills, an intimate relationship exists among them. Bloom (1956) considers the lower levels as perquisites for upper-level skills.

The skills of analysis, synthesis, and evaluation are mostly referred to as higher-order thinking skills that describe CT. *Analysis* focuses on classifying ideas into different categories/ themes and examining the relationship between ideas and their organization. This skill involves three components such as analysis of elements, analysis of relationships, and analysis of organizational

principles. Bloom (1956) claims that"…it is probably more defensible educationally to consider analysis as an aid to fuller comprehension…" (p. 144). Conversely, comprehension of the ideas in texts does not assure the ability to analyze ideas, yet the ability to analyze eases the process of comprehension (Bloom, 1956). *Synthesis* concentrates on the ability to combine different ideas to generate a comprehensive and novel work. The task of combining elements appears in the stages of comprehension, application, and analysis, yet in the synthesis stage, a rigorous ability is required to associate and put together different parts. Synthesis comprises three parts: the product of a unique communication (i.e., inform, describe, convince, and entertain), the product as a plan or proposed set of operations, and the product as a set of abstract relations (Bloom, 1956). *Evaluation* indicates the ability to judge the significance or validity of ideas, assumptions, or claims against certain criteria. Being a sophisticated process, evaluation includes the integration of knowledge, comprehension, application, analysis, and synthesis. Therefore, evaluation can be operated at each stage of the hierarchy (Bloom, 1956).

Ennis (1983 cited in Dong, 2015), however, questions the efficacy of the taxonomy in characterizing the complex concept of CT by mentioning the absence of precise criteria to assess both teaching and learning. This criticism, nonetheless, failed to restrict the dominance of the model in the EFL arena to promote students' CT and thereby English language learning. Researchers and practitioners frequently use Bloom's (1956), Facione's (1990), and Paul and Elder's (2002) models when applying CT in the context of EFL. For instance, Báez (2004), in the study that focused on investigating the impact of CT in improving English language learning, incorporated CT elements from Bloom's (1956) and Facione's (1998) models. Unlike the other researchers, Baez included the *knowledge* level in the CT skills category. Thus, knowledge, interpretation, analysis, evaluation, inference, explanation, and self-regulation were the CT skills emphasized in the study.

Similarly, in the study that concentrated on enhancing CT in academic writing through the use of peer evaluation, Daud (2012) attempted to design rubrics. The rubrics comprised CT skills that were compiled from Anderson et al.'s (2001) and Facione's (1990) categories. The researcher identified CT skills that were significant to writing and were assumed to be measurable. The skills included *interpretation, application, analysis, evaluation, and synthesis*. Contrary to other researchers, Daud involved *application* as a CT skill to reinforce the use of appropriate citation

techniques, correct grammar, and an accurate argumentative tone. Dong (2015), on the other hand, illuminates the importance of Paul and Elder's (2002) model to apply CT in the context of academic writing. The researcher used the taxonomy to study the impact of CT instruction on students' CT and writing performances.

Despite variations in the proposed models, the core skills (i.e., analysis, synthesis, and evaluation) are prevalent across the models. In the present study, therefore, the researcher adopts the higher-order thinking skills in Bloom's (1956) taxonomy. In this model, students might get the opportunity to execute the CT skills when doing writing activities. Nonetheless, students have to receive explicit guidance from their instructors to demonstrate Paul and Elder's (2002) CT skills model. On the other hand, Paul and Elder's *intellectual standards* are ideal in the present study since these standards simplify the process of evaluating students' CT ability or the quality of outcomes.

2.1.2.2. Critical Thinking Dispositions

Along with cognitive skills, theorists and researchers mention CT dispositions as a component of CT. Facione et al. (1995) refer CT dispositions as "a constellation of attitudes, a set of intellectual virtues…" (p. 2). Dispositions indicate tendencies or motivation to apply cognitive skills (Jones et al., 1995). Several intellectuals (e.g., Elfatihi, 2017; Facione, 2000; Halpern, 2003; Jones et al., 1995; Paul & Elder, 2002; Vaseghi et al., 2012) contemplate CT dispositions as a foundation to efficiently execute CT skills in different situations or circumstances. Facione et al. (1995) contend that an overall ability to utilize CT skills appropriately can be achieved when the disposition towards CT is reinforced. There exists a possibility that individuals could acquire CT skills without an adequate disposition to implement them when necessary. The individual is, therefore, unlikely to be considered a good critical thinker. Contrarily, possessing the disposition toward using CT skills does not assure proficiency in CT skills (Facione, 2000). Yet, it is expected that the motivation stimulates the possibility to practice CT skills. This, on the other hand, indicates that the awareness or knowledge an individual has about CT skills precedes the determination to employ the skills.

As was evident in the CT skills, experts present different illustrations of CT dispositions. For example, according to Facione and Facione (1992 as cited in Facione, 2000), CT dispositions incorporate seven elements such as t*ruth-seeking, open-mindedness, analyticity, systematicity, CT self-confidence, inquisitiveness, and maturity of judgment*. Besides, Halpern (2003) proposes six

aspects of CT dispositions. These include *willingness to plan, flexibility, persistence, willingness to self-correct, admit errors, and change your mind when the evidence changes, being mindful, and consensus-seeking.*

Differently, Paul and Elder's (2002, p.39) taxonomy of CT dispositions encompasses *intellectual integrity, intellectual humility, intellectual sense of justice, intellectual perseverance, intellectual fair-mindedness, intellectual confidence in reason, intellectual courage, intellectual empathy, and intellectual autonomy*. Although this taxonomy entails some core elements in common with other experts (e.g., Facione, 1990; Halpern, 2003), Paul and Elder added a different emphasis to it. The authors attached the CT disposition with a weak versus a strong sense of CT. In the weak sense, a critical thinker is predisposed to an unethical motive to employ CT skills for his/her advantage at the expense of others' interests. In contrast, based on fair reasons, strong sense critical thinkers utilize CT skills without violating others' rights. To this point, Paul and Elder advocate the essence of CT disposition beyond triggering the use of CT skills; the authors rather imply the influence of CT disposition in determining the manner CT skills can be executed.

CT dispositions, however, did not obtain sufficient attention in educational settings, particularly in the EFL context regardless of their relevance. Several studies (e.g., Daud, 2012; Dong, 2015; Lin, 2014) that intended to investigate the impact of CT on students' English language learning have been conducted, though the disposition aspect gained little weight. The lack of possible instructional strategies to reinforce students' CT dispositions, and the inadequate awareness about the components might have caused little attention.

2.2. Controversies on the Integration of CT with Language Teaching

Producing learners equipped with CT ability and thereby efficiently function in this ever-changing and complex world has become the central agenda in the education sector (Buskist & Irons, 2008; DeWaelsche, 2015; Fahim & Mirzaii, 2014; Schafersman, 1991; Vallis, 2010). Being equipped with the ability to make decisions/judgments and solve problems obtained prominent attention in today's workforce (Buskist & Irons, 2008). Consequently, efficient application of CT elements such as analysis, synthesis, and evaluation in written or spoken language became pertinent. Dealing with novel problems, for example, require generating multiple pieces of information, analyzing concepts, ideas, and terms as well as being flexible to adapt to new changes.

Accomplishing works that require judgment/decision-making demands regulating the proliferation of information and careful weighing of evidence (Buskist & Irons, 2008; Halpern, 2003). Different intellectuals (e.g., Çavdar & Doe, 2012; Khatib et al., 2012) underscore the indispensable role of evaluating available evidence to identify relevant information and check its credibility and validity. Çavdar and Doe (2012) argue that critical thinkers analyze the underlying assumptions of various information and endorse scrutinized claims or make a decision about the information through 'analytic and 'synthetic' processes (p. 299). Improved CT ability, therefore, is a foundation for competently undertaking responsibilities in the contemporary world.

Mentioning the role of CT in a multitude of dimensions, numerous experts (Dong, 2015; Dwee et al., 2016; Khatib et al., 2012; Lin, 2014; Osborne et al., 2009) accentuate the necessity of promoting students' CT in educational sphere. Khatib et al. (2012), for example, argue that since learners and learning became the core issue in the educational system, the teaching of CT assists learners in constructing their knowledge and synchronizing their learning. The authors maintain that "it is a moral right for learners to learn how to think critically" (p. 34). Similarly, practitioners (Elfatihi, 2017; Zhang, 2018) insist on the promotion of students' CT to enhance students' language learning, which is assumed to facilitate the process of solving problems and making decisions. According to this perspective, success in a particular career depends on communicating ideas convincingly, reading between the lines and presenting valid evidence, and recognizing alternatives (Hughes, 2014; Zhao et al., 2016). In a similar notion, others (e.g., Çavdar & Doe, 2012; Golpour, 2014) assert that promoting students' CT skills targets advancing knowledge instead of knowledge transmission that emphasizes memorization and recitation of facts. Promoting CT has, therefore, evolved into a crucial goal in English language teaching since learners are unlikely to communicate ideas efficiently with the devoid of CT ability.

Regardless of the centrality of CT in different sectors and its eminence in the field of education, controversies exist concerning whether CT can be taught, particularly in the EFL context. Some scholars (e.g., Atkinson, 1997) doubt the feasibility of CT instruction in the context of ESL/EFL. Contrarily, others (e.g., Davidson, 1998) argue for the relevance of promoting students' CT in the ESL/EFL context. Atkinson denotes the impracticality of incorporating CT pedagogies in the context of non-native speakers of English by mentioning some reasons. The author argues that CT is more of a social practice that indicates the tacit behavior that an individual acquires due to being

raised in a particular cultural context. Critical thinking, in this sense, does not embrace constructs suitable for educational purposes.

Atkinson, with a cultural perspective of CT, elucidates the challenge of teaching CT to non-native speakers due to the existence of a social milieu and the education system that opposes the very nature of CT. Individuals in non-Western groups are assumed to conform to the norms in society. For Atkinson, learners in the EFL context are not encouraged to challenge and take an independent rhetorical position but rather acknowledge and maintain the others' stance. Expressing group solidarity and shared social purposes are promoted instead of innovation and individual creativity. Besides, Atkinson mentions the absence of CT skills that are effectively transferable to other settings beyond their narrow educational contexts. Hence, the author indicates the irrelevance of teaching CT by assuming generalizability in diverse contexts.

Opposing Atkinson's cultural approach to CT, Davidson (1998) argues that the failure of many scholars to propose a clear definition of CT does not retain the concept of CT exclusively in specific contexts. Davidson contemplates CT as a rather more universally relevant concept that everyone requires to acquire. The author contends that the existence of CT inhibiting factors such as conformity, submission, silence, and imitation in the ESL/EFL context can be principal reasons to promote CT in L2 settings than in the L1. In other words, being alien to the practice of promoting CT does not ascertain the impossibility of teaching CT. The impeding factors on CT promotion and their negative consequences on the performance of EFL learners trigger the need to promote CT. Supporting this perspective, the findings of numerous empirical studies (e.g., Dong, 2015; Fahim & Mirzaii, 2014; Golpour, 2014; Lin, 2014; Mehta & Al-Mahrouqi, 2015; Moghaddam & Malekzadeh, 2011; Nejmaoui, 2019) confirmed the feasibility and significance of promoting students' CT in ESL/EFL context.

Moreover, the other source of argument focuses on the attempt to consider CT as an inborn trait instead of a learned ability. In this perspective, CT is regarded as an innate ability that cannot be reinforced in educational settings. As Ristow (1988, cited in Cotton, 1991) implied, CT is presumed as "a fluke of nature, a genetic predisposition…qualities [that] are either possessed or not possessed by their owner and that education can do very little to develop these qualities" (p. 44). Contradicting this perspective towards CT, contemporary intellectuals (e.g., Buranapatana, 2006; Dwee et al., 2016; Facione, 1990; Halpern, 2003) argue that CT embraces both CT skills

and dispositions which can be taught in different educational settings using appropriate teaching approaches.

The prevalence of seemingly varied interpretations of CT is a root cause of the controversies surrounding the concept of CT. There exists a misconception that differences exist among the several definitions of CT despite overlaps in most of the definitions. The resemblance in most of the CT models proposed by different scholars confirms the absence of significant disparity among the various interpretations of CT. Nonetheless, the inadequacy of an agreed definition of CT and components of CT prevents the attempt to develop a holistic understanding among scholars. This, on the other hand, contributes to confusion concerning the essence of CT, and ways of explicit inculcation into educational curriculums. In any case, the requirement for efficient individuals in different sectors as well as the dissatisfaction with the teaching strategies that mainly concentrate on the memorization and recall of facts alter the attention of most educators, particularly in the context of EFL to emphasize the promotion of students' CT in L2 classes.

2.2.1. Domain-general and Domain-specificity of Critical Thinking

Regardless of the consensus among the preponderance of educators concerning the possibility and the significance of promoting CT in the educational context, controversies regarding whether CT should be taught in a domain-general or domain-specific approach are unresolved. Proponents in the area of domain-general approach (e.g., Davies, 2013; Ennis, 1989 cited in Tiruneh et al., 2017), consider CT elements as general and applicable across different domains. They argue that most aspects of CT appear in everyday instructions, and in the social, political, and economic aspects that are not delimited to subject-specific concepts (DeWaelsche, 2015). CT instruction is, therefore, claimed to be effective when CT components are fostered independent of any discipline-specific contents. CT elements can be easily recognized and acquired when the dominance of specific content instruction is avoided (Tiruneh et al., 2017). According to the advocators, the explicit introduction of CT principles is claimed to facilitate the process of transferring the learned CT skills to different situations (Buranapatana, 2006; Hofreiter, 2005; Meng, 2016).

Despite the contention that CT skills need to be taught as a domain-general course, the generalists acknowledge that the application of some CT skills demands discipline-specific knowledge. As Abrami et al. (2015) explain "the existence of general skills does not imply the nonexistence of context-specific knowledge" (p. 281). Ennis (1990 cited in Meng, 2016), for example, claims that

CT involves components that are cross-disciplinary and domain-specific. The demonstration of CT elements, therefore, varies from one discipline to the other due to the existence of CT aspects that require background knowledge of the issue to be solved- subject-specific knowledge. In other words, CT principles are general, though background knowledge or information is required for operating the CT components in a particular issue (Buranapatana, 2006). The generalist seems to maintain a neutral stance that recognizes both the discipline-general and discipline-specific nature of CT instruction.

Unlike the domain-general approach, proponents of discipline-specific CT instruction (e.g., Case, 2004; McPeck, 1990b cited in Tiruneh et al., 2017) advocate the integration of CT components with subject matter contents. As Buranapatana (2006) posits "CT cannot be carried on in a vacuum" (p. 34). Because CT skills, in the lens of the specifist approach, vary across domains, it is unrealistic to nurture students' CT delineating from a particular subject matter knowledge. Case (2004), in this regard, asserts that "thinking without content is vacuous and content acquired without thought is mindless and inert" (p. 46). When CT aspects are presented with facts, principles, and concepts of a particular discipline, learners engage in the meaningful application of CT, for instance, performing analysis, elaboration, evaluation, and comparison of information and solving problems (Fahim & Eslamdoost, 2014; Kuhn, 1999; Tiruneh et al., 2017).

On the other hand, scholars continue arguing about whether to follow an immersion or infusion approach when embedding CT instruction into discipline-specific content. The main argument of the proponents of immersion instruction (e.g., McPeck, 1990b cited in Tiruneh et al., 2017) is that learners acquire CT components through constructing knowledge of a subject matter. The immersion approach illuminates the promotion of students' CT in an implicit fashion. Learners are assumed to learn CT skills through engaging in solving problems, making dialogues, performing analysis, synthesis, and evaluation of broader perspectives related to a subject area, yet without any obvert instruction of CT skills (Meng, 2016; Nejmaoui, 2019; Tiruneh et al., 2017; Wang, 2017; Zhao et al., 2016). Students are, thus, unaware of implementing issues related to the concept of CT and its involvement in their learning. This absence of explicit awareness of CT, nonetheless, does not impede them from employing CT skills as they engage in CT-stimulating tasks. The immersion instruction was, however, criticized for its weakness in enabling students to transfer their CT ability into other contexts. Meng (2016), for example, argues that when learners are not

conscious of the CT skills, they might have little understanding of the CT elements; as a result, the possibility of transferring the ability to a different situation decreases.

On the contrary, despite their advocacy of the generalist view of CT, some theorists (e.g., Davies, 2013) assert the significance of the infusion approach to CT instruction. In the infusion approach, the interpretation, relevance, and other aspects of CT are explicitly introduced to students along with subject-matter instruction (Alwine, 2007; Zhao et al., 2016). Meng (2016) mentions some reasons for the value of this approach. Firstly, learners are claimed to improve their CT when they are explicitly taught about CT. Secondly, students tend to think critically about the subject matter when they know how to apply CT. Thirdly, students get initiated to think critically as the learning condition explicitly stimulates CT, and they are likely to operate CT ability in other situations.

Despite arguments concerning the selection of a better approach to CT instruction- the domain-general or domain-specific, it seems evident that the domain-specific approach to CT instruction draws considerable attention. Numerous researchers (e.g., Bouanani, 2015; Çavdar & Doe, 2012; Quitadamo & Kurtz, 2007) in different disciplines attempted to conduct studies with a particular emphasis on integrating CT with the contents of a specific subject matter. More specifically, in the context of EFL, several studies (e.g., Bibens, 2013; Daud, 2012; Dong, 2015; Lin, 2014; Moghaddam & Malekzadeh, 2011; Nejmaoui, 2019; Rahmat et al., 2020) have been carried out aligning CT components with concepts of writing instruction.

2.3. The Nature and Purpose of Writing at University

2.3.1. The Nature of Writing

Writing is a sophisticated process that involves a unique representation of thought in visible signs. It stipulates the orchestration of several activities to create and discover graphic signs that reveal the meaning in one's mind. Until the thought becomes visible through signs, it is impossible to detect what is being processed in the writer's head. This shows that writing primarily operates in the writer's mind (McDonald & McDonald, 2002). In describing the process involved in writing, Luria (1971 cited in McDonald & McDonald, 2002) noted that writing "assumes a much slower, repeated mediating process of analysis and synthesis, which makes it possible not only to develop the required thought but even to revert to its earlier stages, thus transforming the sequential chain of connections in a simultaneous, self-reviewing structure" (p. 118). Writing is, thus, the conscious

mental activity of discovery and reformulation of ideas through the process of planning, drafting, revising, and editing (Graham, 2008).

As a goal-oriented activity, writing requires integrating available resources and mental capacity. It involves conscious attention to the construction of a meaningful combination of ideas. Breeze (2012), in this regard, explains that "writing is much more than the generation of words on a page, or the production of grammatically correct sentences in acceptable handwriting" (p.2). The goal of writing dictates the mental effort and the overall thinking process in coordinating ideas (Cumming, 2006). More importantly, writing as a 'socio-psychological process' of communication exceeds the confinement to personal meaning (Babni, 2018, p.1). It instead facilitates the disclosure of an intelligible message to the intended audience.

The complex nature of writing extends to striving to maintain certain conventions that are used to attain the goal of the writing. Kennedy (1998), in this regard, states that "good ideas cannot be shared with others unless they are conveyed in a language that others can understand" (p. 16). Writing in different contexts including in academia, occupational, or other social arena is regulated by conventions (Breeze, 2012). For instance, academic essays, reports, or letters follow certain conventions in line with their respective nature. Writing is, therefore, beyond the act of exploration and expression of meaningful ideas. Possessing specific knowledge about the appropriate conventions of writing or a particular genre is one thing. Understanding the goal or purpose of the writing is another thing. The writer's ability to think critically, in this case, functions to align the purpose of the writing with the appropriate convention.

2.3.2. The Purpose of Writing at University

Writing serves various purposes in academia, especially in universities where CT is valued in written products. Students' writing ability holds a predominant position in the overall teaching-learning process at the university. It is often a determinant factor of students' success at university and their future professional life. That means the continuation of the role of writing in students' professional life after university graduation is inevitable. Writing is, therefore, a mechanism to teach and learn writing and other subject matters, assess students, be a member of the academic discourse community, and lead successful professional life.

One of the core purposes of writing in university is to function as a means to teach writing. Success in the university is mainly dependent on possessing better writing competence. Breeze (2012), in this case, asserts that “within the university context, learning to write is tantamount to learning to think, to gaining that intellectual maturity which constitutes a primary aim of tertiary education” (p. 3). It is a tacit requirement that students' ability to write in university extends beyond a mere expression of opinions, feelings, or assumptions. Learning the ability to exhibit critical thinking through analyzing, evaluating, and synthesizing varied sources of knowledge is central. In other words, Piršl et al. (2011) denote that “students must learn to apply a rhetoric that is characterized by an exact, systematic logical argumentation and empirical rationale” (p. 2). Students are, therefore, assumed to learn the general academic writing conventions and field-specific technical writing requirements. For this purpose, students engage in accomplishing several writing tasks. Therefore, writing is used as an instrument to equip students with the necessary writing competence.

The other purpose of writing is to facilitate learning other subject matter contents. In explaining this particular role of writing, Zhu (2004, cited in Renandya & Widodo, 2016) elaborates that "writing is used as a means to help students acquire content knowledge and to meet the pedagogical needs of context area professors and programs" (p. 43). For instance, writing is the crucial mechanism of learning the grammar, vocabulary, mechanics, and other fundamental elements of the English language. Raimes (1983) claims that "when students write, they also have a chance to be adventurous with the language, to go beyond what they have just learned to say, to take risks" (p. 8). In other words, through writing students involve in experimenting with the language structure, terms, and other expressions.

More importantly, writing is the main instrument for assessing students' performance in university. In most cases, students' academic performance is determined by what they write. in describing this issue more, Piršl et al. (2011) explain that “the writing assignments act as pivotal qualifications for the continuation of their university careers, and can make or break students’ personal goals” (p. 4). Likewise, Zeleke (2017) adds that students are often asked to accomplish several written assignments, tasks, and exams such as paragraph and essay writing, written exams, laboratory reports, and senior essay projects to evaluate their performance. Piršl et al. (2011) further claim

that the role of writing as a strategy of assessment is highly pronounced than the other purposes of writing mentioned so far.

Beyond serving as an assessment mechanism, writing is a route that introduces students to the larger academic discourse community. It paves a way to express views and share common perspectives on a subject with other members of the academia (Bailey, 2011). It also allows students to learn from others about how to handle subject-specific matters when composing. This, on the other hand, is an indication that writing assumes the role of leading students in the pursuit of intellectualism.

Furthermore, the purpose of writing is not restricted to student's academic experience in university. It instead continues to serve them as the rudimentary mechanism of facilitating careers when students enter different governmental or private institutions. Operating in the workforce, where most writing activities seek CT ability, is highly dependent on students' writing competence that was acquired at university (Piršl et al., 2011). For instance, in illustrating the expected writing tasks, Graham (2008) indicates that "employees in business as well as government must be able to create clearly written documents, memoranda, technical reports, and electronic messages" (p. 6). Writing with the involvement of CT in using the appropriate writing conventions is the optimum mechanism to accomplish the tasks in the workforce.

2.4. The Relationship between Critical Thinking and Writing

There exists an intimate relationship between CT and writing. Several scholars (e.g., Bibens, 2013; Paul & Elder, 2002; Vallis, 2010; Wilson, 2019) maintain that CT and writing are complementary to each other. CT is contemplated as a foundation to develop ideas in writing, while writing is regarded as a mode to exhibit CT. Explaining this reciprocal relationship between CT and writing, Paul and Elder (2002) explain that “disciplined writing requires disciplined thinking; disciplined thinking is achieved through disciplined writing (p. 376)”. This view echoes the relevance of CT to compose a substantiated text that meets the intended purpose. Conversely, CT is manifested through writing. In this regard, Menary (2007) asserts that "the act of writing is itself a process of thinking" (p. 622). CT, as a mental activity, becomes tangible through the process of constructing sentences, paragraphs, and essays. In a way that illuminates the centrality of CT in the process of writing, experts (e.g., Bennett, 2018; Flower & Hayes, 1981; Harmer, 2004; Schoonen et al., 2009)

stress the involvement of an organized process of thinking throughout the act of writing. The process of writing, as various intellectuals indicate, involves three stages such as prewriting, writing, and post-writing. Throughout this process, the main CT elements- analysis, synthesis, and evaluation- play a crucial role.

In the prewriting stage, which is mainly concerned with planning, the implementation of CT elements such as analysis and evaluation of ideas is indispensable. Making appropriate planning through generating and organizing ideas considering the purpose and the audience is a base in efficiently composing texts. A writer generates important information from long-term memory (Flower & Hayes, 1981), and through reading different sources (Rahmat et al., 2020). Retrieving relevant ideas, nonetheless, entails analysis and evaluation of possible points. Applying these CT elements, for example, enables a writer to recognize and scrutinize the quality of alternative concepts, main assumptions, perspectives, or arguments related to the topic. Along with generating ideas, the writer organizes information in a particular structure by categorizing concepts into distinct groups and subgroups to make meaningful concepts (Flower & Hayes, 1981). This demands analyzing information- distinguishing the relationship between ideas- to organize points as compatible with the purpose and the intended audience.

Besides the planning phase, the involvement of CT elements is evident in the actual writing stage. In this stage, a writer conveys ideas, concepts, and perspectives according to the planning. Unlike in the stage of planning, a writer presents concepts in a meaningful, elaborate, and organized way (Flower & Hayes, 1981). Synthesis, as the aspect of CT, takes part in this process so that alternative perspectives along with the writer's point of view on the topic become reflected (Rahmat et al., 2020). Applying synthesis, a writer composes well-developed text by incorporating evidence, supporting details, examples, and further explanations. This process, therefore, requires maintaining the logical relationship between ideas, coherence, or overall organization of concepts as well as appropriate use of language forms and expressions. As the need to refine or add new ideas arise, a writer returns to the stage of generating and organizing ideas (Flower & Hayes, 1981; Harmer, 2004), which simultaneously requires applying the other CT elements-analysis and evaluation.

In the post-writing phase, which involves revising the written product, CT elements play a significant role. Reviewing, as a conscious act, embraces evaluation and modification to improve

the quality of the written output (Flower & Hayes, 1981). Because writing is regarded as a reflection of thinking, evaluation of a written output is not confined to the layout or structure of the text. Evaluation, as Moon (2008) states, focuses on whether the points revealed in writing accurately represent thought. Evaluation, as such, deals with examining the quality of concepts in the text as well as the manner of their representation. The quality of ideas is maintained by evaluating the ideas in terms of their clarity, accuracy, precision, relevance, depth, breadth, logic, significance, and fairness (Paul & Elder, 2006, p. 12). Likewise, the way concepts are presented-coherence, cohesion, language use, vocabulary, and mechanics- is the other area evaluation involves. The revision, therefore, targets modifying the thinking behind the formulation of the ideas along with the overall structure of the text. This process, inversely, triggers the act of re-planning, re-writing, and re-reviewing.

Because of the recursive nature of the writing process, the CT elements become prominent throughout composing. The act of revision, for instance, is not fixed to the last stage in the writing process. It instead is applied at the different stages of writing (Harmer, 2004; Schoonen et al., 2009). This implies the possibility of CT components-analysis, synthesis, and evaluation- to occur right through the process. Due to this feature of writing, Moon (2008) argues that "in order to facilitate CT, we need to take writing more seriously-it seems reasonable to say that writing is central to the development of CT in current higher education" (p.133).

2.4.1. Writing as a Means to Improve Critical Thinking

Signifying the association between CT and writing, practitioners (e.g., Bouanani, 2015; Çavdar & Doe, 2012; Quitadamo & Kurtz, 2007) in different disciplines endorse writing as a relevant mechanism to stimulate CT. According to this perspective, the goal is to improve learners' CT about subject matter knowledge by assigning writing tasks. Learners, through writing, are expected to reflect their CT in applying knowledge of their course content in line with the requirements of different contexts. Practitioners (Çavdar & Doe, 2012; Quitadamo & Kurtz, 2007) assert that because writing reflects thinking, it is possible to detect learners' thoughts about the course content and thereby provide feedback. Likewise, due to its recursive and reflective nature, writing is claimed to assist learners to utilize CT elements (Bouanani, 2015). In this regard, Paul and Elder (2006) posit that "in writing, they [students] are able to clearly and accurately analyze and evaluate ideas in texts and in their own thinking" (p. 5). As such, findings in different studies (Bouanani,

2015; Çavdar & Doe, 2012; Quitadamo & Kurtz, 2007) revealed that writing assisted learners in enhancing their CT in Biology, Political Science, and Business.

Similarly, in the context of EFL, explaining the connection between CT and writing, researchers (e.g., Nejmaoui, 2019; Shaarawy, 2014; Sharadgah et al., 2019) attempted to reinforce CT through writing. The explicit aim in this perspective was to enhance students' CT in writing. For instance, with a focus on examining the effect of journal writing on students' CT skills, Shaarawy's (2014) study aimed at enhancing students' CT skills by engaging students in journal writing based on the contents they learned. Students were expected to prepare weekly journals by following Bloom's (1956) taxonomy. The findings revealed that journal writing improved students' CT skills. Despite the findings, the study lacks clear evidence regarding how the CT elements were integrated with writing skills. Besides, a specific description of CT skills that students improved was not implied.

In a like manner, Nejmaoui (2019) has investigated the impact of CT instruction on EFL learners' CT in argumentative writing. Reinforcing CT in argumentative writing was the purpose of the study. The dominant claims in the study indicate that along with acquiring knowledge of contents, learners need to think critically about the contents and improve their reasoning and thinking skills instead of emphasizing language forms. Thus, in integration with writing lessons, CT skills that concentrate on developing reasonable arguments were explicitly introduced to learners in the experimental groups. The findings revealed that learners improved their CT skills in argumentative writing in terms of using reliable evidence, recognizing existing perspectives and arguments, providing supportive evidence to conclusions, and making logical relationships between ideas and points in their writing. Nonetheless, among the lists in the rubric used to evaluate CT, Nejmaoui (2019) avoided conventions that emphasize sentence, spelling, punctuation, paragraph format, and word usage. The researcher indicates the fallacy of assessing learners' CT in light of the appropriate use of linguistic aspects. Learners' CT skills need to be assessed based on the logical flow of ideas in their writing. This point of view, however, contrasts with Lin's (2014) findings that indicated learners attempt to reconstruct linguistic forms to sufficiently communicate their ideas.

In the same line of inquiry, Sharadgah et al's (2019) study emphasized assessing the impact of fostering CT through argumentative essay writing on learners' CT. Through nurturing CT in the context of argumentative writing, the study aimed at promoting learners' ability in utilizing CT skills such as interpretation, analysis, evaluation, inference, explanation, and self-regulation

(Facione, 1990). Writing lessons that incorporated the CT skills were instructed through explicit instruction of CT, modeling, group discussion, group and individual tasks, and individual essay writing. The findings indicated a strong positive correlation between CT and writing that supported the explanation about the existence of a reciprocal relationship between CT and writing. Besides, learners improved their CT skills in terms of interpretation, analysis, evaluation, inference, and explanation. The study emphasized the relevance of using argumentative writing to promote students' CT.

The relationship between CT and writing was evident in the aforementioned studies. The studies particularly conducted in the EFL context (Nejmaoui, 2019; Shaarawy, 2014; Sharadgah et al., 2019), however, follow a one-sided approach-they only evaluated CT in writing. The impact of CT reinforcement on learners' writing performance did not obtain the required attention. This might be due to the assumption that learners' CT improvement could imply their development in writing performance.

2.4.2. Critical Thinking as a Means to Enhance Critical Thinking and Writing Abilities

In a comprehensive and explicit manner, the interrelationship between CT and writing was advocated by various scholars (e.g., Dong, 2015; Lin, 2014; Moghaddam & Malekzadeh, 2011; Zhao et al., 2016). They explicate the impact of CT in enhancing CT ability and thereby writing performance. Improving writing performance through nurturing CT was the central idea in this viewpoint. CT, in this case, serves as a means to enrich writing competence. The intellectuals (e.g., Bibens, 2013; Nejmaoui, 2019; Paul & Elder, 2002; Vallis, 2010) assert that academic writing is beyond a simple collection of words, linguistic structures, and paragraphs. Writing is not a process of repeating accumulated information about a particular topic. Nejmaoui (2019) argues that it is unlikely to successfully communicate meaning by merely repeating language rather than by consciously constructing concepts.

CT is mostly linked with enabling writers to compose texts retaining the purpose. Experts (e.g., Rademaekers, 2018; Vallis, 2010) maintain that constructing ideas in writing focuses on accomplishing a particular aim that involves solving problems, making decisions/judgments, or answering questions. This makes writing different from a mere description of issues and prescriptions without a particular goal and retrieving facts and information (Bibens, 2013). Composing a text for the intended purpose, however, embraces developing plausible reasoning,

evidence, and conclusion which require demonstrating CT. For instance, generating information, inspecting the relevance of the information, and coordinating ideas in a meaningful and reasonable way mainly involve the application of CT. In other words, CT, as a sequence of strategies, guides writers to "think through a given idea" (Vallis, 2010, p. 5).

In more specific terms, the application of CT elements such as analysis, synthesis, and evaluation advances the way ideas are presented in writing. Writing entails classifying, comparing and contrasting, and incorporating alternative outlooks. Writers, therefore, execute components of CT. They perform analysis, synthesis, and evaluation of sources and evidence to verify the validity of information and identify optional perspectives. This enables writers to present plausible ideas backed up with sufficient evidence and examples, and minimize constructing distorted texts (Moghaddam & Malekzadeh, 2011; Nejmaoui, 2019). Thinking critically, as a result, exposes writers to "ask appropriate questions, gather relevant information, efficiently and creatively sort through this information, reason logically, and come to reliable and trustworthy conclusions" (Qing, 2013, p. 7).

To investigate the influence of nurturing CT in enhancing learners' writing performance, researchers have conducted several studies. Moghaddam and Malekzadeh (2011), for example, studied the impact of promoting CT on L2 writing ability. Learners were taught the principles of CT fundamentally related to evaluating evidence and opposing arguments, identifying helpful strategies to elaborate points of view, and presenting arguments in an organized and reasonable manner. The findings revealed that learners enhanced their writing performance in terms of composing meaningful and well-structured text. They learned to support points of view with examples and elaborated ideas, present ideas clearly, maintain paragraph organization, and recognize alternative views. Despite this result, the study declined to indicate the criteria used to measure learners' writing performance. Besides, learners' CT performance was overlooked.

On the other hand, emphasizing both learners' CT and writing performance, Lin (2014) examined the effect of CT-infused writing instruction on learners' CT and writing performance. CT was promoted by integrating thinking tasks with writing lessons. The CT skills and dispositions of the 89 high school learner participants were measured using CCTST (California Critical Thinking Skills Test) and CCTDI (California Critical Thinking Disposition Inventory). Besides these inventories, students' compositions, diaries, interviews, and a questionnaire were used to generate

data. According to the results, learners' CT ability as well as writing performance were improved. The findings concerning learners' CT ability revealed that besides developing a positive attitude towards CT, learners recognized the relevance of reasoning and evaluating evidence and information. Learners improved their ability to clarify and build up their reasoning by incorporating alternative perspectives, quotations, and proverbs as well as by providing philosophical elaborations, examples, personal experiences, and interpreting terms. Additionally, students improved their writing in terms of incorporating relevant ideas, elaborating ideas, and using complex sentence structures and new terms. Due to the need to express their ideas, students were found using new sentence structures, expressions, and words though they were uncertain of their accuracy. The study implied that learners with poor performance in writing got many benefits from the practice of promoting CT.

In addition to Lin, Dong (2015) assessed the effect of CT instruction on learners' CT and writing performance. CT-oriented writing lessons that integrated Paul and Elder's (2002) model (i.e., elements of thought, intellectual standards, and intellectual traits) were employed. A questionnaire, writing tasks, brainstorming worksheets, peer review checklist, and interviews were used to generate data from the 44 EFL learners in China. In consonance with Lin's results, Dong's study showed improvements in students' CT and writing performance. Concerning students' CT ability, the results revealed that learners gained a broader understanding of CT, learned its application in writing tasks, and recognized strategies to evaluate and refine their thinking in writing. Similarly, concerning their writing performance, students enhanced their ability to develop a plausible thesis statement and generate multiple perspectives. They learned to incorporate elaborated supportive evidence maintaining the coherence and cohesion of ideas in their writing.

In general, CT and writing are inseparably connected. Writing creates a suitable condition to practice and enhance CT. Equally, improvement in CT complements progress in writing performance. Due to this significantly positive relationship between CT and writing, theorists, practitioners, and researchers call for attention to promoting CT in writing classes.

2.5. CT Promoting Strategies in Writing Classes

Education centers on two principal goals: the teaching of what to think, which focuses on acquiring subject matter knowledge, and the teaching of how to think (critical thinking) (Schafersman,

1991). The practice of promoting students' CT embraces both supporting students to have an adequate understanding of the contents of a subject matter and enabling them to think critically through the acquired knowledge (Crawford et al., 2005; Schafersman, 1991). Promoting CT, however, does not mean making learners think critically. As D'Angelo (1971 cited in Buranapatana, 2006) implies, "we cannot teach critical thinking as a process in itself. We can only teach about critical thinking" (p.32). In other words, nurturing CT aims at providing students an opportunity that enables them to constantly practice analytical skills instead of accumulating knowledge of facts and information. For example, comprehending the system of a language and its use does not make learners proficient unless they practice thinking critically through the language in light of the intended purpose (Kabilan, 2000).

Promoting CT in writing classes is a matter of enabling students to acquire the basics of writing in a way that benefits students to exhibit advanced writing ability to their level. Researchers (e.g., Fahim & Mirzaii, 2014; Moghaddam & Malekzadeh, 2011; Vallis, 2010) denote that writing involves not only linguistic and mechanical conventions but also rhetorical competence. Assisting learners to be conscious of how to inform, persuade, question, and argue in their writing through organizing ideas in the appropriate format by considering the purpose of writing is the main concern of promoting CT in writing classes. In other words, promoting students' CT in writing means encouraging students to evaluate, question, analyze, synthesize ideas, solve problems, and challenge ideas in their writing rather than recalling basic features of writing (Crawford et al., 2005). Qing (2013) expounds that "the process of fostering CT competence deals with stimulating students' reverse thinking and cultivating their independent thinking ability, then students may consciously apply their previously acquired knowledge into practice" (p. 6). Promoting CT in writing classes, therefore, concentrates on cultivating an understanding of the basic elements of writing and knowing how to efficiently use them.

The promotion of students' CT in writing classes, however, requires creating a conducive classroom environment that stimulates students to apply CT when composing texts. The classroom environment determines learners' tendency to make analyses, synthesis, and evaluation of ideas, concepts, and perspectives while producing texts. Cotton (1991) asserts that a classroom environment with "high expectations, teacher warmth and encouragement, and pleasant physical surroundings" is conducive to enhancing CT (p. 9). As learners get the necessary attention and

encouragement, they develop a sense of willingness to learn. Besides, such a classroom condition is claimed to enable learners to be open to multiple perspectives that lead them to produce novel ideas in their composition as they strive to meet the 'high expectation'. Wilson (2019) also shares the view that promoting CT is possible in language class which is "interactive, vibrant, authentic, explicit and scaffolded" (p. 14). A learning class with sufficient exposure to classroom interaction through posing questions, discussing with others, carrying out challenging problems, and participating in group tasks, supports learners to practice CT while writing texts (Wilson, 2019). As Buranapatana (2006) claims, designing a learning condition in this way stimulates inquisitiveness, curiosity, and a positive attitude that possibly makes learners apply CT.

Practitioners, therefore, suggest different instructional strategies and a variety of activities. There is no single best strategy to promote students' CT since diverse teaching strategies exist (Abrami et al., 2015; Dong, 2015; Fahim & Mirzaii, 2014; Moon, 2008). There is, however, a consensus among researchers (e.g., Çavdar & Doe, 2012; Dong, 2015) on the relevance of using CT-oriented instructional strategies that stimulate learners' active involvement in writing class. The suggested strategies by different scholars can be categorized under the broad spectrum of a learner-centered approach. This approach gives a chance for learners to play an active role in constructing knowledge, examining assumptions, and solving problems (DeWaelsche, 2015; Duron et al., 2006; Jones et al., 1995; Vaseghi et al., 2012). These instructional strategies include teacher guidance and modeling, collaborative learning, questioning, writing assignments, and reading tasks.

2.5.1. Teacher Guidance and Modeling

Teachers play an indispensable role in facilitating the process of promoting CT in writing classes. Numerous researchers (e.g., Alfares, 2014; Buskist & Irons, 2008; DeWaelsche, 2015; Facione, 1990; Hofreiter, 2005) indicate that teachers take the role of giving direction on how to apply CT, providing an example of CT demonstration or modeling, and designing appropriate tasks. Learners think by themselves, yet teachers' assistance to make learners realize links between ideas, and establish and substantiate understanding is essential (Alfares, 2014). In this regard, intellectuals (e.g., Buskist & Irons, 2008; Facione, 2000; Wilson, 2019) suggest that students become aware of specific CT elements and tend to apply them whenever needed if CT components are explicitly introduced. An explicit introduction to CT entails a clear definition of CT, its components, the significance of CT in connection with writing, and a description of its application in the process

of writing (Buskist & Irons, 2008; Hofreiter, 2005). This enables students to examine their thinking and appropriately apply CT in different contexts (Wilson, 2019).

Beyond making students aware of CT through obvert instruction, instructors' modeling of the demonstration of CT impacts students' implementation of CT. Most researchers (e.g., Abrami et al., 2015; Buskist & Irons, 2008; Hofreiter, 2005) consider modeling, among the other CT instructional strategies, as the best means to reinforce the disposition aspect of CT. For example, Facione (2000) points out that "one powerful tool for nurturing the disposition toward CT in students and coworkers is by modeling it" (p. 81). Teachers model the demonstration of CT by recognizing biases and understanding their viewpoints (Hofreiter, 2005). Through modeling, therefore, learners improve their motivation and willingness to apply CT. Thus, they become flexible when dealing with alternative ideas, detect personal bias and develop the habit of questioning views when developing ideas in writing (Zhao et al., 2016).

Despite the relevance of the teacher's modeling of the application of CT, students exercise CT in their writing when they receive the teacher's comment. Providing feedback on learners' written work enables them to modify their thinking in a written product. Students efficiently practice CT in writing classes when they are challenged with demanding written tasks, yet they need feedback to accomplish such tasks. Teacher feedback assists students to evaluate and refine their thinking, examine the flow of their ideas, and the overall construction of their written output. Given the relevance of providing feedback, Walker and Diaz (2003) state that offering feedback concentrating on content without neglecting the grammatical and spelling aspects encourages learners to think critically and thereby improve their writing. In contrast, the authors maintain that "vigorously grading on grammar instead of commenting might discourage students, inhibiting their willingness to think critically" (p. 65).

On the other hand, other researchers (e.g., Buskist & Irons, 2008; DeWaelsche, 2015; Wilson, 2019) contend that all the processes of explicit introduction of CT, the practice of modeling, and the provision of feedback are facilitated when materials that involve CT-oriented examples and activities are employed. As Wilson (2019) explains, employing authentic materials that include activities and real-life issues related to learners' interests and future careers stimulates students' CT. Materials that initiate students to analyze and examine alternative points and evidence, discuss controversial concepts, and ask questions during writing lessons enable learners to understand and

work in line with the classroom expectation (Walker & Diaz, 2003). As students are exposed to such types of resources, they practice reflecting on their own and others' written work and obtain comments and feedback in return. Learners get the chance to constantly practice CT and benefit from the teacher's guidance when learners engage in challenging tasks than in a simple recall or memorization of facts (Buskist & Irons, 2008; Facione, 2000).

2.5.2. Collaborative Learning

The teacher's role in promoting CT in writing classes, however, is not limited to providing guidance and modeling, but also encouraging collaborative learning. Collaborative learning, as mentioned by numerous practitioners (e.g., Buranapatana, 2006; Dwee et al., 2016; Fahim & Mirzaii, 2014), is a better means to promote students' CT in writing classes. Because collaborative learning entails group discussion, dialogue, peer evaluation/review, and group work, students have the opportunity to share skills and resources. Osborne et al. (2009) argue that the practice of CT is not only an intrapersonal aspect that is limited to an individual level. Students practice CT collaboratively than individually. They practice CT by sharing ideas, comparing and contrasting perspectives, and generating and evaluating information in collaboration (Buranapatana, 2006; Zhao et al., 2016). According to Smith (1991 cited in Daud, 2012), employing collaborative learning is relevant "whenever the learning goals are highly important, mastery and retention are important, the task is complex and conceptual, problem-solving is desired, divergent thinking or creativity is desired, quality performance is expected and higher-level reasoning strategies and critical thinking are needed" (p. 40).

Collaborative learning is a conducive strategy to engage learners in accomplishing challenging or authentic tasks and problem-solving activities. When students carry out tasks, as Rezaei et al. (2011) explain, they need to "work in pairs and groups to describe the content of the discussion, to define the problem, to personalize the problem, to discuss the problem and its alternative solutions, and finally to evaluate the whole process" (p. 775). Dealing with real-world problems that trigger students to make a meaningful connection with their experience enables students to implement CT components. Buranapatana (2006) argues that "students are highly intrinsically

motivated when confronted with real-world problems which are relevant to them" (p.65). In other words, CT is likely to be reinforced in a problem-oriented situation where learners produce multiple perspectives, make analyses, synthesis, and evaluation of evidence and assumptions in collaboration (Case, 2004; Meng, 2016; Saputra et al., 2019).

Peer assessment and peer review, as parts of collaborative learning, make students help each other to enhance their learning, and share experiences to solve problems (Daud, 2012). Daud (2012) argues that learners obtain timely feedback from peers so that they refine their thinking in their writing. They seldom get a quick response in their written product from teachers. This impedes them to recall every detail in their writing to evaluate their thinking and take measures accordingly. As Ammer (1998 cited in Daud, 2012) states, "…[learners] listen to redirection advice regarding a work in progress without the stigmatism of failure that frequently accompanies such assistance directly from a teacher" (p. 268). Working with peers, learners evaluate the quality of their writing, ask for elaboration or explanation of issues learned, and receive comments on the arrangement of concepts in their writing (Daud, 2012). This, inversely, trigger them to evaluate their performance, compare their score with others and discuss the discrepancies so that they become conscious of their strengths and weaknesses (Fahim et al., 2014).

In a similar notion, as learners work in collaboration, they get the opportunity to observe others demonstrate CT components so that they become conscious of the potential mental strategies (Buranapatana, 2006). For instance, students apply CT elements such as interpreting, analyzing, examining, and sharing ideas during peer evaluation. They also engage in negotiating understandings, elaborating reasons, and evaluating interpretations (Buranapatana, 2006; Daud, 2012). This makes other students familiar with the aspects of CT and later apply them. Besides, researchers (e.g., Buranapatana, 2006; Daud, 2012) state that collaborative learning creates a situation in which learners cultivate open-mindedness-the main component of CT disposition. Working together enables learners to critically think about an issue from different angles. They get the opportunity to analyze, synthesize and evaluate alternative perspectives, share knowledge, and do presentations. Their writing, as a result, incorporates broader perspectives, which is a sign of open-mindedness. Likewise, Daud (2012) points out that the practice of giving and receiving comments as well as suggesting optional ideas by different learners helps learners develop the ability to be open-minded.

2.5.3. Questioning Technique

In addition to collaborative learning, practitioners (e.g., Alfares, 2014; Buranapatana, 2006; Fahim & Eslamdoost, 2014; Snyder & Snyder, 2008) explain the relevance of questioning as a technique to promote students' CT. Through questioning, as Beyer (2001a, cited in Buranapatana, 2006) denotes, "students must locate and use the information they may not yet possess as well as restructure familiar information to produce something they do not already know" (p. 418). Learners recognize available perspectives and examine their similarities and differences when they are questioned.

The type of question, however, determines the execution of CT. Questions that demand learners to analyze, synthesize, evaluate, and make judgments of alternative perspectives than the retention of facts are essential to promoting CT (Almulla, 2018; Dwee et al., 2016; Snyder & Snyder, 2008). Likewise, questions that stimulate reasoning and evaluation of reasoning trigger CT ability since these questions require the ability to clarify ideas, interpret expressions and evaluate the relevance and accuracy of ideas (Buranapatana, 2006). Open-ended questions with no fixed responses such as higher-order question types are, therefore, relevant to reinforce CT (Alfares, 2014). Socratic questioning, which implies a thorough investigation, is considered the potential strategy to nurture students' CT. Socratic Questions, according to Fahim and Eslamdoost (2014), are "considered as systematic questions which foster students' awareness of ignorance, misconceptions, wrong assumptions, and false conclusions" (p.145). Socratic questions stimulate CT as multiple responses are possible.

Scholars further mention the relevance of teacher-initiated questioning. Questioning is a means to establish interaction between the teacher and students and provide the chance for learners to practice defending the ideas they presented (Duron et al., 2006). As Fahim and Khatib (2013) explain "it is the duty of the teacher to implicitly ask students to attend to strategies of CT and to evaluate each reasoning and argument on a multi-dimensional level before accepting it as correct" (p.82). Through questioning, teachers enable students to maintain the learned aspects and create a thorough understanding. Schafersman (1991) argues that students get the opportunity to analyze and apply the acquired contents in different situations when the lecture incorporated questioning. For instance, asking probing questions that provide multiple responses supports fostering CT in writing. Probing questioning, as stated by Paul and Elder (2006), encompasses questioning "for

clarification, questions about alternative lookouts, questions to challenge students' assumptions, reasons, evidence, implications, and purposes" and helps to reinforce CT in writing classes (p. 16).

Along with teacher-initiated questions, providing chances to students to pose questions help students to apply CT. Schafersman (1991) claims that "questions from students mean they are thinking critically about what you are saying" (p. 9). The quality of questions posed by learners and teachers determines the level of critical thinking required, shapes the dialogical nature of the learning environment, and facilitates the inquiry process in general (Buranapatana, 2006). Reciprocal peer questioning is a relevant strategy to foster CT. Students practice CT when taking turns to pose questions that demand the ability more than recitation. Preparing high-level questions, however, requires teachers' guidance (Zhao et al., 2016).

2.5.4. Reading Assignment

Reading tasks support the process of promoting CT. This is because reading entails integrating cognitive and affective abilities such as observing, focusing, perceiving, memorizing, building relationships, analyzing, and interpreting (Mahanal et al., 2019; Meng, 2016). Reading involves interrelating and making meaning by evaluating the text using prior experience and knowledge as a platform instead of assimilating and elaborating on points in a text (Mahanal et al., 2019). Constructing meaning requires understating the mind of the author or accurately and precisely detecting what the author says (Paul & Elder, 2006). In critical reading, which integrates both reading and CT, readers engage in evaluating the credibility, importance, clarity, and correctness of texts (Meng, 2016).

Learners' CT gets improved as they practice making analyses and inferences, deriving conclusions, and examining evidence when reading texts to attempt to solve problems (Meng, 2016). When doing analysis, students identify the focal claims and supporting evidence, the writing techniques, and summarize essential ideas. The process of inference, on the other hand, involves making a prediction, understanding the purpose, and drawing a conclusion. When evaluating ideas, learners inspect the validity of the claims and evidence and examine the strength of the argument, questioning and reflecting on the text (Zhao et al., 2016). Different researchers (Meng, 2016; Rezaei et al., 2011) claim that reading helps learners to make reasons and solve problems when they get the chance to question, reflect and discuss what they read with peers.

Some scholars (Dong, 2015; Mehta & Al-Mahrouqi, 2015) stress the relevance of integrating reading and writing to better reinforce CT. Mehta and Al-Mahrouqi (2015) contemplate reading as a foundation to develop purposeful, substantiated, and contextual writing, which is free from prejudices, biases, myths, and stereotypes. Individuals write efficiently when they devote adequate time to reading to gain a deeper understanding of ideas, explore new ideas, and examine existing evidence (Paul & Elder, 2006). This implies CT mediates the process between profound reading and substantive writing (Paul & Elder, 2006). Substantive writing, according to Paul and Elder (2006), refers to "the ability to identify important ideas and express significant implications of those ideas in clear and precise writing" (p. 2). Mehta and Al-Mahrouqi (2015), therefore, suggest the importance of training students to read critically and then apply CT in writing so that they enhance their writing. Arju (2010), in this respect, suggests a guided writing activity that involves the task of identifying the implicit meaning and specific points in a reading text, developing a text, making peer-reviewing, and presenting the written works.

2.5.5. Writing Assignment

CT and writing have a positive reciprocal relationship. The positive correlation between CT and writing explains the effect of CT-oriented writing tasks on students' writing performance (Dong, 2015). According to Buranapatana (2006), "writing is not only a tool for students to express ideas with linguistic competence, but also a tool for systematizing thought" (p.72). Corroborating this idea, Schafersman (1991) explains that writing, as a way of revealing thinking, enables learners to convey ideas in a structured manner. Through writing, learners practice making judgments and making logical reasoning that leads to a conclusion. Due to the interrelationship between CT and writing, educators (Arju, 2010; Case, 2004) insist on designing CT-oriented writing tasks. Assigning authentic writing tasks related to the learners' real life helps learners to generate ideas easily, develop their perspective, and motivate learners to carry out the task so that they improve independent thinking. According to Liu (2018), authentic tasks make learners "have words to say" (p. 985). Such tasks assist learners to "construct actively their knowledge system, to overcome the fear of difficulties, and to help students focus on conception, reflection, and comprehension, thus cultivating the ability to analyze problems and thinking" (Liu, 2018, p. 985).

Practitioners agree about the need to reinforce multi-stage writing to allow learners to perform CT-oriented tasks. Engaging learners in brainstorming and mind mapping, as part of multi-stage

writing, leads students to apply CT as they analyze and evaluate ideas and make decisions to select ideas and terms (Dwee et al., 2016; Liu, 2018). Evaluating writing and refining thought is possible when multi-draft writing is encouraged. Liu (2018) argues that analytical ability improves when learners practice self-evaluation and peer evaluation. In self-evaluation, though not as efficient as peer evaluation, learners examine and enhance their thought in terms of specific criteria. Peer evaluation, on the other hand, stimulates the practice of interpreting, analyzing, examining, and sharing ideas and experiences. The practice of writing several drafts, therefore, facilitates the attempt to exercise CT and improve writing (Daud, 2012; Dong, 2015). Theorists and researchers suggest different types of writing tasks such as note-taking, summary writing, and reflective writing; narrative, argumentative, persuasive, and opinion writing; portfolio writing, and writing seminar papers.

2.5.5.1. Note-taking, Summary writing, and Reflective writing

With the assumption that writing helps to practice CT, educators suggest note-taking and summary writing to foster CT. Schafersman (1991), in this regard, states that "writing forces students to organize their thoughts and think critically about the material" (p. 9). Note-taking, which is regarded as a routine activity, serves to nurture CT (Case, 2004). The application of CT in this activity exhibits when the note-taker endeavor to elaborate on points and evaluate the completed note. Likewise, paraphrasing and summarizing support the practice of CT since learners need to interpret and analyze, and develop concepts logically, accurately, and precisely (Schafersman, 1991). Such writing tasks enable learners to compare and contrast different perspectives.

In addition, Reflective writing creates a suitable condition for learners to practice CT. For example, students are assumed to embrace CT when they write a reflection of their learning experience that involves confusion and questions on concepts they learned, and evaluation of their understanding (Buranapatana, 2006; Mangena, 2003; Schafersman, 1991). This practice of reflection, as Berman (2001, cited in Buranapatana, 2006) states, helps students "reach beyond the limits of their own experience and enter the experience of others" (p.14). Likewise, encouraging learners to reflect on others' work expand their horizons to apply CT. For instance, through media analysis, learners reflect on social, political, and economic issues with a critical lens (Rezaei et al., 2011). Likewise, reflecting on peers' writing and doing a critique of written texts and assumptions enable learners

to practice interpreting, analyzing, and evaluating others' reasoning (Hofreiter, 2005). Consequently, such activity activates the higher mental functioning of students in their writing.

2.5.5.2. Narrative, Argumentative, and Opinion Writing

Engaging learners in short essay writing and allowing them to compose texts as a response to analytical questions helps to promote CT (Buranapatana, 2006). For instance, in writing narrative essays, students are assumed to analyze and reflect on events. Mangena (2003) explains that through narratives, learners express their present and past experiences and forecast the future. Thus, learners practice analyzing alternative outlooks concerning the experience. Similarly, opinion writing, which focuses on contemporary issues, stimulates learners' ability to structure their thinking. It allows engaging in a complex process of thinking that requires presenting viewpoints with adequate justification and organization (Arju, 2010). According to the author, as with any type of writing, opinion writing involves the ability to organize ideas coherently, identify ideas, and employ correct grammar and appropriate words and conclusions.

Moreover, asking learners to develop argumentative or persuasive texts on controversial topics is expected to stimulate CT. Intellectuals (Çavdar & Doe, 2012; Dong, 2015; Mulnix & Mulnix, 2010) agree that this type of writing demands students to be aware of inconsistencies, confusion, or incompleteness in their premise and conclusion. Learners construct their arguments with a strong foundation when they do adequate analysis and evaluation of ideas before designing their points. This creates a platform to exercise CT and enhance writing performance. Besides, getting instructors' feedback at the first stage of brainstorming and extracting information contributes to learners' attempts to justify their arguments and conclusion (Çavdar & Doe, 2012).

2.5.5.3. Portfolio and Seminar Paper Writing

Portfolios and seminar paper writing are the rigorous writing tasks that demand the execution of CT. As a collection of students' work that describes their learning experience, skills, perspectives, and knowledge, portfolios stimulate reflective self-evaluation, which is one of the aspects of CT (Mangena, 2003). Preparing a portfolio, which comprises students' work throughout the writing process (i.e., pre-writing, in-writing, and post-writing), assists to improve CT. Since portfolios contain a collection of different written works, students obtain the opportunity to reflect and

modify based on peers' and teachers' feedback in terms of organization, viewpoints, reasoning, coherence, and cohesion (Liu, 2018).

Similarly, encouraging learners to prepare seminar papers extends the opportunity to exercise CT and enhance writing. Using seminars, students can be assisted to formulate ideas, analyze, synthesize, and evaluate alternative perspectives as they prepare short texts for discussion (Mangena, 2003). Besides taking care of the presentation of concepts, tasks like these demand students to consider the spelling, grammar, punctuation, and overall convention of academic writing (Schafersman, 1991).

2.6. Teachers' Beliefs, Practices, Students' Performances, and Contextual Factors

2.6.1. The Nature of Teachers' Beliefs

Examining teachers' beliefs is a daunting task due to inadequate conceptualization and different interpretations of the term by scholars. As Pajares (1992) implies, the construct of belief is affected by "…definitional problems, poor conceptualizations, and differing understanding of beliefs and belief structures" (p. 307). Different scholars used several constructs such as cognition, attitudes, explicit theories, personal theories, perceptions, perspectives, and conceptions in connection to beliefs (Pajares, 1992). Developing a clear definition of beliefs leads to a better understanding of the relationship between teacher beliefs and practice. Comparing beliefs with truth and opinion, Loucks-Horsely et al. (1998, cited in Nurealam, 2014) define beliefs as a concept "more than opinions: they may be less than truth, but we are committed to them" (p.27). The widely accepted interpretation of belief by psychologists, philosophers, and anthropologists is that "beliefs are thought of as psychologically held understanding, premises, or propositions about the world that are felt to be true" (Richardson, 1996, p. 103). These interpretations characterize beliefs in a more broad sense.

Investigators, however, demand to make a clear distinction between the general beliefs from the educational beliefs since teachers also have beliefs about things outside of the educational context (Pajares, 1992). Concerning educational beliefs, Pajares (1992) illustrates teachers' beliefs about the nature of knowledge, the contents of a specific subject, teachers' impact on students'

performance as well as the influencing factors of teachers' and students' performance. On the basis of this general understanding of educational beliefs, Pajares (1992) characterize beliefs as "teachers' attitudes about education-about schooling, teaching, learning, and students" (p. 316). For Haney et al. (2003), beliefs are "one's convictions, philosophy, tents, or opinions about teaching and learning" (p. 367). Pajares asserts that every teacher has beliefs about their work, students, subject matter, and their roles and responsibilities. In the present study, beliefs refer to a complex set of theories, assumptions, and perspectives instructors hold about the teaching, learning, and curricula related to writing and the role of CT in writing instruction.

Besides confusion in defining beliefs, theorists argue about the distinction between beliefs and cognitive knowledge. Despite variations between beliefs and knowledge, beliefs are a form of personal knowledge (Mohamed, 2006). This personal or professional knowledge is formed based on teachers' classroom experience. As teachers' classroom experience develops, their professional knowledge becomes advanced and forms personalized pedagogy or belief structure that determines teachers' perceptions, behavior, and decisions (Nurealam, 2014). Likewise, Abelson (1979) relates beliefs with the demonstration of knowledge to accomplish a particular purpose.

Teachers' cognitive knowledge embraces pedagogic knowledge, content knowledge, and pedagogic content knowledge as well as knowledge of learners, context, and the curriculum (Shulman, 1986). For instance, writing instructors' repertoire of instructional strategies, understanding of aspects of writing skills, knowledge of strategies to deliver specific writing concepts, knowledge of ways to enhance student's writing performance, and understanding of facilitating and impeding contextual factors underlie writing instructors' cognitive knowledge. This knowledge is incorporated under teachers' beliefs about the subject matter that integrates procedural and conditional knowledge (Tsui, 2011). Procedural knowledge is related to knowing how to perform a particular task, while conditional knowledge indicates understanding a specific time, reason, and condition to utilize declarative (knowledge of facts) and procedural knowledge (Pajares, 1992).

Regardless of this intimate relationship between teachers' beliefs and knowledge, some theorists delineate cognitive knowledge from beliefs. Beliefs are implicit and resistant to change, while knowledge is conscious and open to change. Beliefs, however, serve as information receptors, organizers and manipulators, and regulators of knowledge, while knowledge influences beliefs

(Mansour, 2009). As Pajares (1992) claims, the recognition of objective facts underlies the construct of knowledge. Beliefs, on the other hand, are dependent on evaluation and judgment. As a result, as Nurealam (2014) explains, there exist criteria to assess knowledge, though there is no consensus among intellectuals about how to judge or evaluate beliefs. The disagreement on whether knowledge influences beliefs or vice versa is unresolved.

To understand teachers' beliefs about teaching and learning, scholars often interpret teachers' beliefs as distinguished into two categories: behaviorist (transmissionist) or constructivist (contemporary) (Mansour, 2009). With the lens of these perspectives, researchers examine teachers' beliefs about learners' roles, interaction and learning, learning contents (curriculum), teaching methods, teachers' roles, and learning environment. In the behaviorist pole, a teacher is regarded as an expert who advocates the passive transmission of knowledge. Because the teacher thinks on behalf of students, students are expected to passively receive information related to writing skills. In contrast, a teacher, who held a constructivist view, encourages students to construct knowledge based on their prior experience so that the teacher is considered as a facilitator (Mohamed, 2006; Nurealam, 2014). Teachers extend students' experience in writing by encouraging them to apply CT in their texts. Teachers tend to employ different instructional strategies that enhance students' opportunities to execute CT ability. However, teachers' classroom actions cannot be entirely categorized in one of the classifications since they eclectically implement aspects that describe both behaviorist and constructivist principles.

2.6.2. Teachers' Beliefs and Practices

The interrelationship between teachers' beliefs and practice was demonstrated by several scholars (e.g., Alzaanin, 2014; Borg, 2003; Breen et al., 2001; Gabillon, 2012; Pajares, 1992; Tsui, 2011). Despite controversies among scholars, numerous studies indicate that teachers' beliefs affect their practices. Pajares (1992), in this case, states that "beliefs are the best indicator of the decisions individuals make throughout their lives" (p. 307). Similarly, in describing the impact of teachers' beliefs on practices, Borg (2003) contends that classroom practices are determined by "instructional concerns or considerations teachers have, principles or maxims they are trying to implement, their thinking about different levels of context, and the pedagogical knowledge they possess (p.91)". Borg mentioned teachers' pedagogical knowledge as a factor that influences their practice.

Teachers' beliefs, which are formed on the basis of prior learning experience, educational programs, and teaching experience, influence classroom practice. A previous learning experience impacts teachers' beliefs, which in turn influences classroom practice. Individuals examine and interpret new information in light of their previous experiences. Borg (2003) asserts that teachers' earlier experiences as a student puts an extended impact on the teachers' beliefs about teaching and learning. Teachers either decide to use a particular teaching strategy or avoid using it depending on their prior schooling experience (Tsui, 2011). That means the pleasing or discouraging experience teachers had in connection with a particular instructional method guides them either to employ or avoid it in their classroom practice (Numrich, 1996).

Apart from the prior learning experience, educational programs are claimed to influence teachers' beliefs as well as their classroom behavior (Breen et al., 2001; Tsui, 2011). Teachers reshape prior beliefs about a certain subject matter, teaching methods, learners' and teachers' roles, and learning based on knowledge gained in teacher education (Hall, 2005). However, there is no consensus among scholars on whether teachers' beliefs are dynamic or stable. Despite contradiction with reality, beliefs may resist changes. Teachers use stable beliefs to scrutinize new information. Nonetheless, there are circumstances in which changes in beliefs occur. For a radical change (accommodation) in beliefs to occur, new beliefs need to be reasonable. New beliefs are unlikely to be assimilated unless existing beliefs are strongly questioned and proved insufficient (Gabillon, 2012; Pajares, 1992). Educational programs that don't consider teachers' prior beliefs, therefore, are unlikely to shape teachers' beliefs and thereby influence classroom practice (Borg, 2003). For instance, teachers tend to be reluctant to implement a new teaching strategy, which is promoted in teacher training, if its principles significantly vary from their belief system.

Furthermore, teaching experience is the other factor that makes teachers modify their beliefs and thereby their classroom practice. Through experience, teachers generate teaching ideas (Borg, 2003; Tsui, 2011). Borg (2003) explains that teachers are forced to change their understandings of language teaching as well as their classroom practice through time due to experiences they gained from interacting with students, and the subject matter. The principal assumption is as teaching experience grows, teachers begin to derive personal theories, which in turn determine their pedagogical decision in the classroom.

2.6.3. Teachers' Beliefs, Practices, and Students' Performances

There exists a multifaceted connection among teachers' beliefs, classroom practices, and student's performance. Teachers' beliefs embrace "personal and professional knowledge" that integrates "subjective and objective knowledge". This knowledge is impacted by the sociocultural environment- the classroom and working environment dynamics (Succar, 2023, p. 1110). Teachers hold beliefs about teaching, learning, and students (Woolfolk-Hoy et al., 2009). Buehl and Beck (2015) state that there is a reciprocal and complex association between beliefs and practice, though it is often thought that beliefs precede practices. This indicates that the beliefs teachers hold influence their practices in the socio-cultural context, which inversely impacts their beliefs. According to Fives and Buehl (2016), teachers' beliefs modify and dictate teachers' thoughts and teaching practices. Teachers' preference for teaching methods, therefore, determines the nature of the learning environment that inversely influences students' learning outcomes (Nxasana et al., 2023).

Several scholars (e.g., Ferguson & Bråten, 2022; Fives & Buehl, 2016; Turner et al., 2009) explicate the influence of teachers' beliefs about students' performance, in particular, on their subsequent classroom practices. Teachers hold varied beliefs about students in general and individual students in a particular class. They possess diverse mindsets in light of the different students' abilities. This mindset, therefore, drives the teachers' classroom instruction (Fives & Buehl, 2016). Teachers' beliefs about ability as either stable or malleable predict their classroom decision (Turner et al., 2009). According to Fives and Buehl's (2016) explanation, teachers with a 'growth mindset' consider ability as malleable, whereas teachers with 'a fixed mindset' believe ability is stable. Teachers who believe students' abilities as malleable tend to encourage students, equip students with problem-solving skills, employ cooperative groups, assign open-ended tasks, and easily adapt to changes (Fives & Buehl, 2016; Turner et al., 2009). Similarly, Ferguson and Bråten (2022) assert that these teachers align students' achievements and failures to their teaching methods instead of students' stable ability. In contrast, teachers with beliefs that students' ability is stable are less helpful and reluctant to create an engaging environment for students (Fives & Buehl, 2016). Instead, they prefer competition, rewards, and punishment (Turner et al., 2009). Teachers with this mindset associate students' academic performance with different levels of intelligence.

Consequently, they put high expectations on students they consider intelligent (Ferguson & Bråten, 2022).

On the basis of their beliefs about students' abilities, teachers maintain different expectations that result in different treatment. Teachers' expectation, which reflects their beliefs, drives "what the teacher attempts to elicit from the students and what students expect of themselves" (Herrera, 2010, p. 19). Contreras (2011) argues that teachers unintentionally show their higher expectations to students with better performance, and they display lower expectations to students with inadequate performance. Lower teacher expectations create reduced students' motivation, and engagement in the learning process, which inversely compel teachers' preference to assign less challenging tasks and minimum student-teacher communication (Herrera, 2010). Orszag (2015), in this respect, adds that teachers have the duty to assign activities that are a little advanced to students' current level to enhance their cognitive capacity. The more students engage in performing challenging activities, the more they enhance their CT ability. Teachers' decision to provide CT-demanding activities is, however, determined by teachers' beliefs about students' CT ability. Warburton and Torff (2005) expound that teachers tend to use easier activities for students they assume possess lower CT ability, whereas they give complex and challenging activities to students they consider to have better CT ability.

Ultimately, students' perceptions of teachers' practices play a profound role in the association between teachers' classroom practice and students' learning outcomes. Students' perceptions become activated by the stimulus in the learning environment. As a complex cognitive process, perceptions indicate the ability to recognize, understand and interpret information generated from the surrounding (Jusnaeni, 2020; Putri, 2021). According to Brok (2001), teachers have a paramount contribution to the learning environment. Students derive meaning in light of their perceptions of the learning environment that embraced the input provision, the classroom interactions, the teaching methods as well as assessment strategies (Chartian & Efendi, 2019; Wei et al., 2009).

Students' perceptions about the learning environment, therefore, determine their manner and actions, which inversely influence their performance (Carter, 2021; Kurniawan, 2015). Ferreira and Santoso (2008) argue that the influence of students' perceptions of the teaching process on their learning is more pronounced than the impact of the teaching method itself. Students' positive

perceptions of teachers' practice stimulate deep learning, while negative perceptions trigger superficial learning (Atkins, 2018; Ferreira & Santoso, 2008). These students' perceptions, according to different intellectuals (Carter, 2021; Dart et al., 1999; Ferreira & Santoso, 2008), determine the learning approach students employ, their motivation, and engagement, which inversely impact their academic performance. In Carter's (2021) perspective, motivation and engagement enable students to maintain academic resilience and success. In general, teachers' practices determine students' perceptions and thereby their academic performance, which in turn shape or influence teachers' beliefs and practices.

However, studies concerning students' perceptions of teachers' practices and their academic achievement are inconclusive. Carter's (2021) study that focused on the relationship between students' perceptions of the learning environment and their academic achievement revealed the absence of an association between students' perceptions and achievement. In a different way, Du and Zhang (2022) studied the students' perceptions of the CT learning environment and their academic performance. The finding showed the significant impact of academic achievement on students' perception of the CT learning environment. Consequently, the perceptions of high achievers towards the learning environment were better than the low achievers. Nonetheless, there is a dearth of research investigating the influence of students' perceptions of teachers' practices in promoting CT in writing classes and students' CT and writing performances.

2.6.4. Teachers' Beliefs and Practices in Promoting Students' CT in Language Learning Class

Teachers hold various beliefs concerning issues related to CT. As the results of different studies indicate, teachers' beliefs focus on the interpretation and elements of CT, the relevance of CT, the role of a teacher, their perceived practice, and the nature of CT-promoting activities. CT is described as the ability to conclude by perceiving issues from several angles and it is being skeptical towards what is read or heard, and respecting opposing views (Kanik, 2010). In Meng's (2016) study, on the other hand, CT is depicted as the ability to produce novel ideas, develop a point of view, solve problems, and make plausible decisions through demonstrating different skills such as 'analyzing', 'identifying', 'reasoning', 'processing information' and 'questioning' (p. 178). Gregory (2011) explains that the interpretation of CT by the respondents of the study was limited

to cognitive skills such as analysis, synthesis, and evaluation. The researchers, in general, imply an insufficient understanding of the concept of CT among different teacher respondents.

Regardless of the gap in providing a comprehensive interpretation of CT, participants in various studies stress the relevance of students' CT ability in language learning. For instance, the importance of CT in Meng's (2016) study was aligned with being analytical, rational, and reflective when attempting to formulate perspectives or make a judgment. Besides, CT was claimed to assist in the successful completion of written tasks that involve logical ideas (Toshpulatova & Kinjemuratova, 2020). Moreover, Gregory (2011) states that the respondents believe CT is relevant to handling the 'how' and 'why' questions rather than merely focusing on the superficial understanding of the subject matter contents. Similarly, CT is considered relevant to conducting successful communication and persuading an audience (Ahmad et al., 2019).

In addition, different activities and teaching strategies that are assumed to promote students' CT are reported in various studies. For instance, activities such as problem-solving, argumentative writing, reflective writing, report and blog writing, paraphrasing, and summarizing were contemplated as CT-promoting activities as reported in studies (e.g., Hasni et al., 2018; Toshpulatova & Kinjemuratova, 2020; Tuzlukova et al., 2017). Besides, different teaching strategies that were claimed to be helpful to promote students' CT include explicit teaching of CT elements, assessment of CT, inductive approach, inquiry, self-reflection, questioning, group, and whole class discussion, and modeling (Gregory, 2011; Kanik, 2010; Meng, 2016).

Regardless of the participants' professed beliefs about promoting students' CT, the studies revealed the prevalence of some level of consistencies and inconsistencies in accordance with their practices. Because beliefs influence teachers' practice, consistencies between teachers' professed beliefs and their practices in promoting CT were found in some studies (Gregory, 2011; Hasni et al., 2018; Meng, 2016). In these studies, the participants were observed implementing the CT fostering activities and teaching strategies in the classroom in an implicit manner. For instance, Gregory (2011) indicated the absence of any explicit discussion of the term CT in the classroom, though the instructors stressed the relevance of CT and claimed to promote CT. Gregory asserts that teachers' beliefs about the meaning of CT implicitly dictate the preference for teaching strategies that are helpful to promote CT. Gregory argues that the void of an explicit introduction or discussion of CT in the classroom does not ascertain the absence of CT promotion in the

classroom. Through document analysis, the author indicates the instructors' expectation of students' efforts to improve their CT throughout the semester and the exhibition of students' CT in the project that students carry out at the end of the semester.

On the other hand, the inconsistency between teachers' professed beliefs and their practices was reported in some studies (e.g., Itmeizeh & Hassan, 2020; Jabr, 2003). For example, Jabr (2003) indicated the participants' claim of improving students' CT by employing supporting instructional practices and creating a CT-reinforcing classroom environment. Nonetheless, the author refuted this claim and stated the limited understanding of the concept of CT the participants hold. The author stated the absence of teachers' training on the issue of CT. Based on the classroom observation data, Jabr explained that the participants' practice was not supportive of students' CT. Likewise, contrary to the professed beliefs about the promotion of students' CT, Itmeizeh and Hassan's (2020) study revealed the participants' adherence to traditional teaching methods. The authors explained that some of the participants were under the influence of the strategy they learned the language, while others were 'fossilized' with particular teaching methods that have been used throughout their teaching experience. In other words, teachers with many years of experience repeat the same method throughout the years.

2.6.5. Contextual Factors on the Promotion of CT

The contextual factors determine the degree of consistency between teachers' beliefs and practices (Borg, 2003; Tsui, 2011). Context contributes to the formation of teachers' beliefs and impacts their classroom practices. Nespor (1987, cited in Nurealam, 2014) explains that "the contexts and environments within which teachers work, and many of the problems they encounter, are ill-defined and deeply entangled…beliefs are peculiarly suited for making sense of such context" (p. 324). Regardless of studies that indicate consistency between teachers' beliefs and their instructional decisions, findings in some studies revealed inconsistencies between beliefs and practices. Several contextual factors contribute to the inconsistency between teachers' beliefs and practices (McIntyre, 2011; Nurealam, 2014; Orafi, 2008).

2.6.5.1. Hindering Factors

Some factors that impede the promotion of students' CT in writing classes are identified. These factors are presented in three categories: student-related factors, teacher-related factors, and

situational factors. One of the student-related factors is students' achievement-oriented perception and lack of interest. Hofreiter (2005) states that students who prioritize scoring good grades are less determined to think critically or they resist the practice of reinforcing CT. These students prefer memorizing facts and responding to close-ended questions. It is hard to promote CT in language classrooms where students struggle to meet teachers' expectations to secure their grades at the expense of thinking critically about the content or activity they have to carry out (Alwine, 2007; Gregory, 2011; Reynolds, 2016).

Besides, students' motivation to learn is considered an essential factor in the practice of promoting CT. There is a tendency that students eliminate thinking critically about the content they perceive as irrelevant or unimportant, and they adopt a passive approach when their interest is not addressed. There are times students seek others to think critically on their behalf as they concentrate on routine or mundane things. Consequently, promoting CT in such situations is challenging (Buskist & Irons, 2008; Gregory, 2011).

On top of student-related factors, different intellectuals point out other hindering factors related to teachers. One of the impeding factors is teachers' limited understanding of CT as well as a lack of knowledge of CT-promoting strategies. Researchers (e.g., Gregory, 2011) indicate instances in which the strategies and activities that teachers use aid to promote students' CT in spite of the absence of an explicit introduction to CT. Teachers' limited knowledge about the concept of CT and their inadequate understanding of strategies to promote CT deter their efficacy in explicitly promoting students' CT (Dwee et al., 2016). Alwine (2007), in this regard, notes that "how instructors teach a skill that they themselves do not understand?" (p.194). The absence of pre-service and in-service methodological training concerning CT has contributed to the limited awareness of teachers about CT (Reynolds, 2016; Snyder & Snyder, 2008). Buskist and Irons (2008), on the other hand, state that teachers fail to promote CT because they are uncertain of the strategies to assess CT in students' work.

Furthermore, situational factors such as time constraints and large class sizes are mentioned as hindering factors. Minimum allotment of time hinders the promotion of CT. The class size as well as the time assigned to a lesson should be compatible to sufficiently promote students' CT (Gregory, 2011). Shortage of time often put pressure on teachers to be indecisive about whether to cover content or to encourage depth of understanding and CT (Saleh, 2019). Consequently,

teachers compel to cover content while handling the large class size and limited time simultaneously (Buskist & Irons, 2008; Mandernach, 2006). Irrespective of these impeding factors there are ample opportunities that can support the practice of promoting students' CT in language classes.

2.6.5.2. Facilitating Factors

Some facilitating factors that pave the way for the promotion of students' CT in language classes are discussed by different educators. As Mulnix (2012) explains, an encouraging condition where students have chances to exercise CT through analyzing statements and identifying evidence and conclusion assists in the promotion of students' CT. Likewise, encouraging students to exert extensive effort to actively perform CT in their writing is found supportive. Buskist and Irons (2008) underlie the significant role of preparing materials that involve suitable exercises and examples that foster students' CT. In consonance with this, scholars (e.g., Buskist & Irons, 2008; Gregory, 2011; Mandernach, 2006) elucidate the relevance of relating lessons with learners' everyday life experiences and future experiences in real life. They assert that students easily fall into boredom and lose interest to demonstrate CT when performing activities that have little or no connection with their life. Activities that challenge students' thinking or stimulate their initiation to examine views and ideas are claimed to facilitate the promotion of students' CT. More specifically, providing chances to students to repeatedly exercise problem-based activities, activities on controversial issues, and critical questions are deemed significant (Hofreiter, 2005; Saleh, 2019). Choy and Cheah (2009), in this case, denote that "for students to think critically and learn actively, teachers must give up the perception that students cannot learn unless a teacher covers it" (p. 198).

Moreover, creating an interactive classroom environment that embraces better teacher-student, and student-student interactions are considered helpful. Teachers can identify students' needs and interests when having good interactions with students. In the same manner, good student-student interaction causes students to feel free to pose questions and communicate sensitive issues, and perspectives (Gregory, 2011; Mulnix, 2012).

2.7. Previous Studies on Teachers' Beliefs and Practices in Promoting Students' CT Skills

2.7.1. Previous Studies in the Context of Education

Several studies have been conducted in the area of teachers' beliefs and practices in promoting students' CT. With particular emphasis on pre-service teacher education, Gregory (2011) explored teacher educators' beliefs about CT and motivations for implementing thinking skills training. The study assessed the interpretation of CT by different education specialists in the USA, their ability in training students to improve CT and the supportive and hindering factors. The study employed a qualitative approach backed up by grounded theory. The data collection involved semi-structured interviews, memos, observation, and document analysis to generate data from seven experienced participants in four fields- language arts, social studies, high school science education, and high school Math education.

The findings revealed that some participants were unable to articulate what CT means and how it can be taught to pre-service teachers despite their realization of its importance in education. Yet, some participants conceptualized CT as the conscious application of analysis, synthesis, and evaluation skills to better understand what is heard or seen. According to the findings, participants with high efficacy beliefs in teaching CT believed that they could effectively instill CT in their classrooms. Their elaboration of CT aligned with the literature. Participants with low efficacy beliefs were uncertain of their CT interpretation, and they thought that they were ineffective in promoting CT. The study indicated that some participants employed CT-enhancing strategies such as questioning, small-group discussion or whole-class discussion, and perspective-taking. Furthermore, the facilitating factors were aligning content with students, meeting students' interests, and creating good interaction among students. On the contrary, the student-related hindering factors involved students' detachment from the lesson, students' inadequate prior experience in CT, and lack of interest. The teacher-related impeding factors were the lack of an explicit introduction to CT and the absence of a safe environment for sharing sensitive issues. Constraints related to class size, and time shortage were the other factors discussed in the study.

In a similar vein, the purpose of Kanik's (2010) study was to explore teachers' conceptions of CT and practices of CT development with particular emphasis on grade seven in Ankara. This study examined teachers' conceptions of CT, their perceived practice in CT development, the strategies teachers used, and the facilitating and impeding factors. A qualitative approach with a phenomenological design was employed to address the purpose. A face-to-face interview was the only mechanism used to generate data from the 70 participants selected from 14 elementary

schools. There was variation among the participants in terms of the field of study, qualification, experience, gender, and the socio-economic status of the school they teach in.

According to the findings, most participants had a better understanding of the concept of CT. They interpreted CT by relating it with the elements of CT skills and dispositions such as analyzing, drawing conclusions, considering issues from different angles, seeking truth, and drawing a conclusion. The participants believed in the relevance of CT to have a clear and in-depth understanding of an issue, examine things from different angles, reach a conclusion and solve a problem. As prerequisites to CT, they stated the necessity of a good command of the language, prior knowledge, experience, disposition, and intelligence. The study further revealed the participants' beliefs that students should be trained to think about the knowledge they received instead of mere memorization of information. The participants claimed that they model CT, use an inductive approach, practice inquiry learning, encourage students to examine concepts from different perspectives, and promote critical reading. Moreover, problems related to students' lack of prerequisite knowledge and insufficient interest in the subject matter were mentioned as hindering factors. The CT fostering factors included the attempt to maintain students' interest, provide guidance, and create a good rapport between the teacher and students.

It is indisputable that Gregory's and Kanik's studies provide notable contributions to the academic arena in which a dearth of empirical studies is available, particularly related to teachers' beliefs and practices in nurturing students' CT skills. However, the studies were not without limitations. For instance, in Gregory's study, the data generated from classroom observation and document analysis were obscure. Kanik's study, on the other hand, overlooked how the participants' perceptions were reflected in their classroom practices. It was only limited to the participants' perceived classroom practice. More importantly, in both studies, there was an absence of any particular emphasis given to teachers' beliefs and practice of promoting students' CT in writing classes. This instigates the need to further explore the issue, particularly in the area of English language teaching.

2.7.2. Previous Studies in the Context of EFL

Unlike Gregory's and Kanik's studies, Meng's (2016) study was conducted in the area of English language teaching. The purpose of Meng's study was to assess the infusion of CT across the English language curriculum by primary school in-service expert teachers in Singapore. The study

concentrated on the expert teachers' beliefs about the concept of CT, the strategies used to infuse CT as well as their concerns regarding the process of integrating CT with reading skills. Using a multiple case study design, the author involved six expert primary school in-service teachers who teach the English language in Singapore. The data collection methods included interviews, observations, and document analysis.

As indicated in the findings, the participants interpreted CT by associating it with specific skills such as analyzing, questioning, interpreting, reasoning, and reflecting. They believed in the association between CT and critical reading. Some participants claimed that CT serves for critical reading, while others considered critical reading as input for CT. The findings revealed that the participants employed different strategies to infuse CT such as teaching students the elements of thought and the use of intellectual standards, modeling CT, and collaborative group work. Consequently, the participants expected students to have multiple interpretations about an issue, make informed decisions, open-minded and independent decision-makers. Furthermore, the student-related hindering factors included students' inadequate competence level and their declining interest. The context-related factors were time constraints and large class sizes. Time constraints and an exam-oriented teaching system were the impeding factors in connection to the curriculum.

This study has a relevant contribution to the area of EFL education in which large-scale studies related to teachers' beliefs and practices in the promotion of students' CT are scant. Besides, the participants' perceived practices were further elaborated with classroom observation. Nonetheless, like Gregory's and Kanik's studies, Meng's study failed to confirm students' application of CT by generating data from them. In addition, writing was not the concern of the study since it only emphasized reading skills.

Moreover, other small-scale studies (e.g., Petek & Bedir, 2015; Tuzlukova et al., 2017) in connection with CT have been conducted in the context of EFL. For instance, Petek and Bedir's (2015) study assessed the perceptions of pre-service and in-service English teachers towards CT and its integration into language education. Employing a mixed methods approach, the authors generated data from 106 (52 pre-service and 54 in-service) English teachers in Turkey. The data collection methods were two questionnaires that incorporated close-ended and open-ended items.

The findings in Petek and Bedir's study showed approximately comparable perceptions of pre-service and in-service English teachers. They had a strong perception of the importance of CT in English language teaching, and the need to provide adequate emphasis on CT in the ELT curriculum. The requirement to give training to pre-service English teachers concerning how to integrate CT into ELT was reflected by the participants. Besides, the study implied the participants' good conceptual understanding of CT, yet they had limited knowledge of the strategies to integrate CT into their practices. According to the findings, the participants described critical thinkers using words such as open-minded, logical, problem solver, curious, and information analyzer. Moreover, students' inadequate language competence, lack of interest, and time constraint were among the impeding factors revealed in the study. Nonetheless, the study did not display a clear indication of the participants' conceptualization of CT, especially in the context of ELT. The strategies the participants used to reinforce CT in the actual classrooms and the outcomes in students' learning were neglected.

Similarly, Tuzlukova et al's (2017) study focused on exploring the English language teachers' beliefs about CT and the association between CT and language teaching methods. The study, which followed an interpretive approach, was conducted at a language-centered university in Oman by involving 24 English language teachers. An open-ended survey that was administered through an online platform was used to generate data.

According to the result, CT was conceptualized in association with specific skills and behaviors such as analysis, evaluation, being rational, reflective, avoidance of bias, and problem-solving. The participants believed that CT enables students to critically approach different issues outside of the classroom context. They thought CT empowers students to solve various problems and address diverse topics in an elaborate and original manner by relating to their experiences. Through this process, students use the language in different forms without a conscious effort to memorize the structure. In other words, the language emerges as students engage in producing their ideas. Furthermore, the result revealed that the participants employ different strategies to promote students' CT such as debate, discussion, higher order questions, report writing, reflective journals, portfolios, paraphrasing, summarizing, reference, and evaluating evidence.

The study is irrefutably relevant, especially in the context of EFL. It signified the interpretation of CT and its relevance in the language teaching sphere as well as the strategies that are helpful to

promote students' CT. This draws extra attention to how to subsume the notion of CT in the EFL context. Nonetheless, the study did not give particular attention to the connection between CT and writing skills. Besides, it neglected to examine how the professed beliefs were exhibited in the classroom practice. In general, like the other studies, attention to the students' effort to execute CT in what they produce is not a concern.

On the other hand, as far as the researcher's knowledge is concerned, there is a gap in addressing issues related to CT at large and instructors' beliefs and practices in promoting students' CT skills in the context of ELT. More specifically, the issue regarding CT and writing skills is neglected with exceptional instances in which CT was mentioned in connection with writing in a few local studies conducted for different purposes. For example, in Tekle et al's (2012) study that aimed at assessing teachers' perception of EFL writing and their practices of teaching writing, an item that touches on CT was included. The focus of the item was to examine the respondents' level of agreement on whether writing requires CT. The result for this particular item indicated a high number of participants' strong agreement with the relevance of CT in writing.

The concept of CT, however, has obtained relatively better coverage in Kitaw's (2017) study that investigated the implementation of active learning in the English common courses in Ethiopian universities. He dedicated a section in the literature review for the discussion about CT in association with writing assignments. The concept of CT was also mentioned in the author's elaboration of active teaching methods. Nonetheless, Kitaw did not attempt to include CT in any of the data collection instruments and examine its prevalence in the actual teaching-learning process.

Generally, irrespective of the prevalence of some studies conducted in connection to teachers' beliefs and practices in promoting students' CT in English language classes, the gaps that have been implied throughout the above discussions instigated the relevance of conducting the present study.

2.8. Conceptual Framework of the Study

The philosophy of sociocultural theory and complexity theory underlie the conceptual framework of the study. Sociocultural theory, which has its origins in the work of Vygotsky, advocates the profound relevance of socially meaningful interaction for learning to occur. According to the

theory, the social world stimulates higher-order cognitive abilities (critical thinking). Lantolf and Thorne (2007) assert that “while human neurobiology is a necessary condition for higher order thinking [critical thinking], the most important forms of human cognitive activity develop through interaction within these social and material environments” (p.198). Similarly, Johnson (2009) elucidates that social interaction, which occurs between students and the social, institutional, and cultural contexts, is a foundation for the development of higher-order thinking (critical thinking). The social and cultural factors that exist in the immediate surroundings of students, therefore, shape their cognitive ability, and there is also a reciprocal influence.

Social interaction, in a sociocultural theory, is facilitated through the mediation of cultural tools and artifacts such as language (oral and written). According to Johnson (2009), "meaning does not reside in language itself, but instead in the social group's use of language" (p.2). Written language, in this case, is a tool through which students reflect thoughts, share experiences or make meaningful interactions in an educational context that is regarded as a socio-cultural setting (Rinnert & Kobayashi, 2009). The meaning students prefer to communicate determines the ways the language is used (Johnson, 2009). However, the role of students’ metacognitive knowledge of writing, linguistic structures, textual codes, and conventions is incontestable. This metacognitive knowledge is shaped and transformed by the educational context where social interactions occur (Rinnert & Kobayashi, 2009). The educational context influences students’ selection of a writing style, purpose, and possible contents in particular writing (Rish et al., 2015). In other words, through the process of internalization, learners acquire ideas, forms, and experiences that are available in the social setting. This internalization of experiences led to higher-level thinking (Wass, 2012), which ultimately contributes to the socio-cultural context where higher-order mental functioning operates.

Performing meaningful interaction in the educational context facilitates cognitive development in the Zone of Proximal Development (ZPD), the core aspect of the sociocultural theory. The notion of ZPD refers to the ability of a student to accomplish a task only with the guidance of others (e.g., teacher, parent, peer) as opposed to what a student can execute independently (Bot et al., 2005). The interpersonal interaction a student has with a teacher, and other peers who have already mastered a particular content helps the student to reach the potential development that is beyond

the student's actual performance (Gass & Selinker, 2008). With the appropriate support through collaboration, therefore, the learner is assumed to accomplish more demanding writing tasks.

A deliberate attempt to design a learning environment that stimulates collaborative learning among peers is necessary for ZPD. Students reach the subsequent stage of knowledge or understanding in writing when they are encouraged to accomplish activities in collaboration. For example, in collaboration, students construct meaning in writing by brainstorming ideas, providing/receiving feedback, revising, editing, and publishing their work. Lantolf and Thorne (2007), in this regard, state that higher-level thinking (CT) is best nurtured in a collaborative learning environment where learners interact. Thus, reinforcing collaboration through implementing a learner-centered approach makes students' writing embrace CT. Consequently, learners transform their writing to the level they efficiently function in university as well as in the workforce. As learners engage in interaction through practicing CT, they learn novel ways of using the language in writing.

In addition to facilitating collaboration among students, instructors support students to reach the potential level of cognitive development through scaffolding- an important aspect of sociocultural theory. Scaffolding implies short-term assistance provided to a student till the student learns to accomplish tasks independently. According to Gibbons (2015), "It is only when teacher support- or scaffolding- is needed that learning will take place since the learner is then likely to be working within his or her ZPD" (P.16). Students obtain such assistance when they are required to learn new concepts or use the language differently through accomplishing challenging tasks (Gibbons, 2015; Hammond & Gibbons, 2001). Allowing students to carry out challenging writing tasks that demand CT in light of students' prior experience and cultural context enables students to write efficiently for a particular purpose. In order to support students in accomplishing the given writing tasks, teachers provide students with essential concepts related to CT, suggest possible words/terms, clarify the features of a particular genre, and provide feedback on their writing. Teachers, by assisting students to complete the tasks and facilitating a collaborative environment, extend students' writing experience.

Moreover, the perspective of complexity theory helps to uncover instructors' beliefs and practices in promoting students' CT in writing classes. The theory, which draws viewpoints from sociocultural theory and ecological approach, advocates a theory of the complex relationship among teachers' beliefs, classroom practices, students' outcomes, and contextual factors.

Complexity theory implies the intricate relationship within a particular system and among different components. That means it signifies the interrelationship that exists both in a specific agent and a general or broad system (Zheng, 2015).

Teachers' beliefs are considered as a specific system that involves subcomponents with intertwined associations with each other (Buehl & Beck, 2015; Zheng, 2015). Teachers hold diverse beliefs concerning students' CT promotion in writing classes such as instructor's and students' roles, the concept of CT, the connection between writing and CT, students' CT and writing performances, CT-promoting instructional strategies and writing activities as well as the teaching context. As different experts (e.g., Buehl & Beck, 2015; Fives & Gill, 2015; Gabillon, 2012) argue, some of these beliefs are explicit so that they are professed during research interviews, while other beliefs are implicit so that they become revealed during the actual practice. Beyond this, there exists a complex relationship among the elements in the belief system to the extent that some of them contradict each other.

On the broader system, on the other hand, the complexity theory illuminates the sophisticated relationship among teachers' beliefs, practices, and the educational context. The theory adopts a holistic and nonlinear approach to understand the relationship between teachers' beliefs and their practices with the consideration of the social context (Mansour, 2009; Zheng, 2015). Context is regarded as a bounding frame to the demonstration of teachers' beliefs. Teachers' beliefs about the nature of the context influence their classroom practice, which in turn impacts the context. In other words, teachers' beliefs, which are shaped by prior learning background, teaching experience, and the socio-cultural context, affect the norms and conventions in the educational setting (Borg, 2003; Nurealam, 2014; Pajares, 1992; Tsui, 2011). In explaining the connection between belief and context, Zheng (2015), for example, states that "teachers' beliefs co-adapt with contexts as the experience of past language teaching and learning is fitted to the here-and-now context, while the adaptation of the belief system transforms the context" (p. 4). This indicates that the context shapes teachers' beliefs, and contextual changes occur as a result of alternation in the teachers' beliefs system.

Educational context, specifically classrooms, as Locastro (2001 cited in Orafi, 2008) states consisted of "social constructions where teachers, learners, dimensions of the local educational philosophy, and more general socio-cultural values, beliefs, and expectations all meet" (p. 495).

More specifically, students' outcome which plays a prominent role in the complex relationship between instructors' beliefs and their practices, is encapsulated in the educational context. Different experts (e.g., Behar-Horenstein et al., 1996; Fives & Buehl, 2016; Schraw & Olafson, 2015; Turner et al., 2009), in this regard, demonstrate that teachers' beliefs about students' performance influence their classroom practice. Different scholars (Dart et al., 1999; Ferreira & Santoso, 2008; Kurniawan, 2015) argue that students' perceptions of teachers' practices influence their motivation, learning approach preference, and engagement, which inversely determine their performance. Orszag (2015), for example, states that teachers' decision to promote students' CT is determined by their beliefs about students' CT ability. Similarly, Warburton and Torff (2005) denote that teachers give CT stimulating activities only to students they consider high achieving. Students' CT and writing performances that are ultimately impacted by instructors' decisions, therefore, contribute to the influence of contextual factors. Contextual factors, in general, interfere with the nexus between instructors' beliefs and practices and cause inconsistencies (Mansour, 2009; Zheng, 2015).

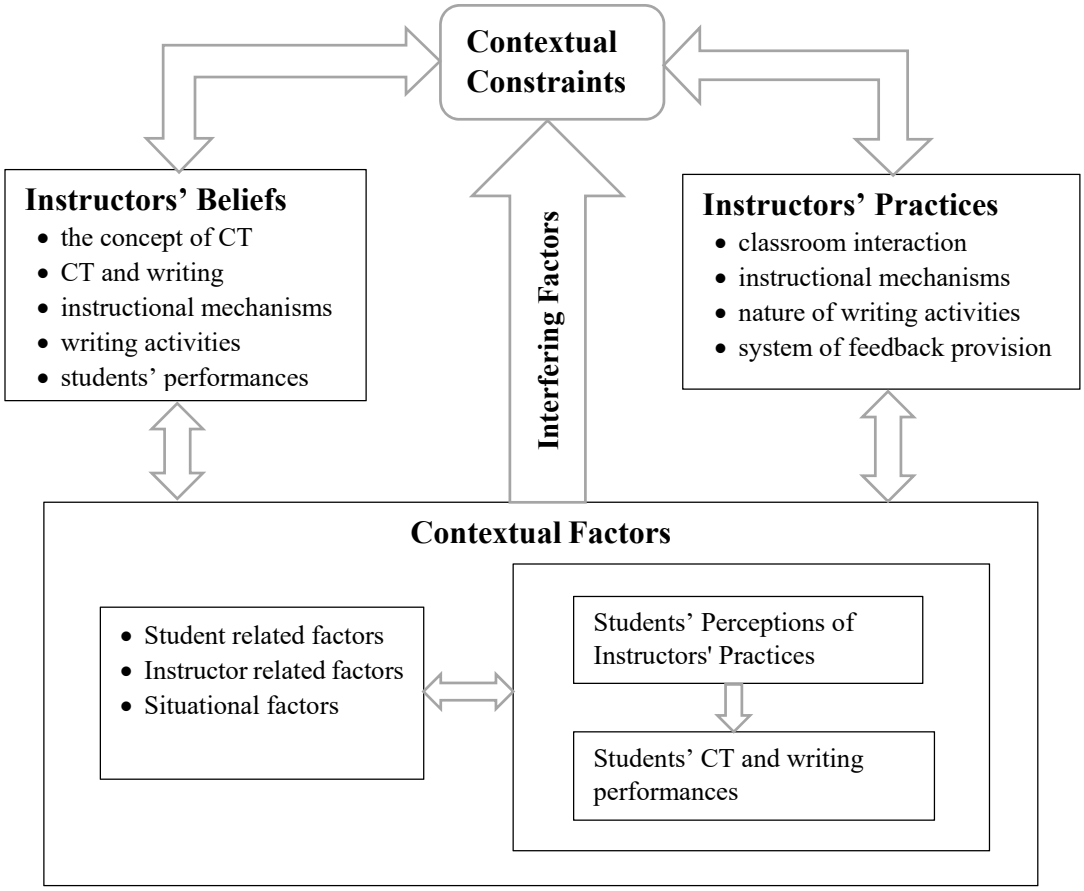
Complexity theory was preferred in the present study due to some reasons. Based on a sound theoretical base, complexity theory provides a unified and systematic explanation of the interrelationship among teachers' beliefs, practices, students' performances, and educational context. This supported attaining a better understanding of the nature of data generated concerning instructors' beliefs and their practices in promoting CT in writing classes along with students' CT and writing performances. In addition, the theory discloses the connection among the subcomponents within the system of beliefs. This provided a base for the study to explain aspects of instructors' beliefs in promoting CT in writing classes. In general, the theory was optimal to treat the data as well as provide a thoughtful explanation of the issue of the present study.

The conceptual model (see Figure 1) was designed and refined based on insights generated from Zheng's (2015) model. According to Zheng's model, EFL teachers' complex belief system involves three major components: teachers' beliefs, classroom practice, and the educational context. These three components are described in an interconnected manner. Teachers' beliefs involve beliefs about EFL, EFL teaching, EFL learning, EFL learners, and EFL teachers. These beliefs system are considered to have a bidirectional impact on the context that embraces the macro-context of society, the Exo-context of schools, and the micro-context of classrooms.

Classroom practice is the core component in the broader context and it is reciprocally connected with teachers' beliefs. Students' outcome, however, is subsumed in the micro-context of the classroom without any explicit emphasis. The model helps to understand the complex interdependence among the components and subcomponents of beliefs, practice, and context.

The model in the present study (Figure 1), thus, involves specific aspects adapted from Zheng's model. These included the intricate association among instructors' beliefs, practices, and contextual factors. Unlike Zheng's model, the model in Figure 1 elucidates students' CT and writing performances as components of contextual factors

Figure 1. *The relationship among instructors' beliefs, practices, and contextual factors*



As indicated in Figure 1 above, each of the main themes (i.e., instructors' beliefs, practices, and contextual factors) embraces subcomponents. Instructors' beliefs reciprocally connect with their

practices despite the mediation of contextual constraints. The contextual constraints stem from different contextual factors related to students, instructors, and situational factors. There exists a bidirectional association between instructors' practices and contextual factors. Students' CT and writing performances, which are influenced by their perception of instructors' practices, have a mutual connection with the other factors in the broad spectrum of contextual factors. These factors, on the other hand, maintain a joint association with instructors' beliefs.

Conclusion

This chapter discussed several core issues that provide a firm theoretical and practical foundation for the overall structure of the study. The discussion involved the interpretation of CT and components of CT along with different CT models proposed by various scholars. Controversies regarding the possibility and appropriateness of reinforcing students' CT in the EFL context were briefly explained. The chapter dedicated sufficient emphasis to writing skills. Therefore, in-depth elaborations were included concerning the nature of writing skills and the requirements of students' robust writing skills in university. The association between students' CT and writing skills, as well as the strategies to promote students' CT skills in writing classes, were presented with the support of empirical findings. Teachers' beliefs and practices are the pillars of the study; therefore, these concepts were thoroughly explained by aligning with contextual factors and students' CT and writing performances. The summary of previous studies focused on signifying the gaps in studies that have been conducted related to teachers' beliefs and practices in promoting students' CT in language learning classes. This illuminates the relevance of the present study. The chapter, moreover, presented discussions about socio-cultural and complexity theories that underpinned the conceptual framework of the study.

CHAPTER THREE: RESEARCH DESIGN AND METHODOLOGY

Introduction

The study aimed to investigate instructors' beliefs and practices in promoting students' CT skills in university writing classes and students' CT and writing performances. This chapter begins by clarifying the research design and proceeds to the explanation of data sources. In the subsequent sections, a description of data collection methods, the reliability and validity of the instruments, data collection, and data analysis procedures are presented. The chapter, moreover, discusses the trustworthiness of the study, ethical considerations, and a review of the pilot study.

3.1. Research Design

Addressing the present research issue with sufficient depth and breadth sought for employing more than a single research approach. For this purpose, a mixed methods approach was employed since this approach, as Creswell (2009) characterized, associates qualitative and quantitative methods. The systematic integration of qualitative and quantitative data elevates the complexity and broadness of the inquiry and clarification of results (Creswell, 2014; Lodico et al., 2006). Mixed methods enhance the quality of the study since the strength of one approach compensates for the weakness of the other one. As Johnson and Christensen (2014) stated, integrating both methods provides "multiple (convergent and divergent) and complementary strengths and non-overlapping

weaknesses" (p. 107). This nature of the approach helped to generate a complete and multidimensional understanding of instructors' beliefs and classroom practices in their context as well as their learners' performances. Besides detecting the instructors' beliefs, mixing different methods helps to minimize misleading responses, and control the researcher's bias in comprehending respondents' responses.

Regardless of the relevance of both quantitative and qualitative methods, the weight given to the methods differs. Among the typologies of mixed methods, the researcher employed a mixed concurrent strategy (QUAL+quant) (Creswell, 2014). In this strategy, the qualitative method obtains priority, and mixing occurs at various stages of the study such as research questions, data collection, and analysis. The qualitative method supported comprehending instructors' beliefs about their experiences in promoting learners' CT in writing classes, and factors related to the practice of promoting students' CT in writing lessons. Therefore, conducting observation, and interviews were necessary for an in-depth response to the research questions. This helped the researcher to "understand multiple dimensions and layers of reality" about the issue of the study (Johnson & Christensen, 2014, p.86). The quantitative method was relevant to generate a comprehensive picture of instructors' classroom behavior. In the view of this method, there exists a reality to be observed from an objective stance (Leavy, 2017) so that students complete a questionnaire about their instructors' classroom decisions. The quantitate method that involved a questionnaire and students' essay writing analysis contributed to substantial insights, particularly for the second and the third research questions.

To manipulate the mixed methods, the researcher adopted a multiple case study design that allows for the integration of quantitative and qualitative data. According to Gall et al. (2003), a case study refers to an "in-depth study of instances of a phenomenon in its natural context and from the perspective of the participants involved in the phenomenon" (p. 436). This design was optimal for addressing the research aim for some reasons. A multiple case study design involves the meaning of multiple respondents to develop extensive and elaborative explanations for the present issue (Yin, 2003). A Case study embraces an interpretive perspective which signifies the existence of multiple realities composed of multiple meanings (Yin, 2014). More than a single participant was, therefore, involved in a vigorous portrayal of the actual phenomena concerning CT and writing and associated factors. Each participant had a unique way of practice and beliefs in promoting

students' CT skills in writing classes due to individual differences in interacting with the dynamic nature of the learning context. Examining similarities as well as differences among the cases helped to detect complex and unique insights that resulted in a plentiful description of the issue in the study.

Additionally, multiple case study aims at developing an in-depth understanding of a phenomenon based on its natural setting. That means a contextual condition that surrounds cases is the central emphasis. The phenomenon and its context are inseparable in a case study (Yin, 2014, 2018). This nature of the case study supported understanding instructors' beliefs and practices in terms of the surrounding context. Therefore, it was possible to explore inhibiting factors that affect instructors' beliefs and practices. Generating sufficient findings, however, was dependent on the use of multiple sources of data. Since the investigator, in a multiple case study design, has minimum interference in the actual context of the study, scholars (Cohen et al., 2000; Gall et al., 2003; Yin, 2014) suggested the use of multiple data collection methods. The use of observation, interviews, a questionnaire, analysis of students' essay writing, and document analysis was inevitable. With the use of alternative methods, it was possible to examine the issue in different dimensions, which produced comprehensive, and exhaustive results. In general, multiple case study design guided the form of research questions, data collection methods, and data analysis in this study (Creswell, 2009).

3.2. Data Sources (Research Site and Participants of the Study)

3.2.1. Research Site

The study was conducted at Debre Tabor University (henceforth DTU), which is one of the third-generation public universities in Ethiopia. The university is located in Debre Tabor City, which is situated in the Amhara region. DTU was established in 2008. Before the university had relocated to Debre Tabor, instructors, and administrative staff began working in Woreta agricultural college. The Department of English Language was not commenced at the time, though communicative English and basic writing courses were offered to students across departments. By the time this study was carried out, the Department of English Language and Literature offered the communicative English language skills II course to 1931 (M=1162, F=769) first-year students in 30 sections. The department offered the course, as a second-term common course, to students in different fields: medicine, pharmacy, computer science, IT, ONS, pre-engineering, OSS, and law.

DTU, among the other third-generation public universities, was purposefully selected due to some reasons. The researcher is a staff member of the English Language and literature department at the university. She, therefore, has familiarity with the university community including the instructors. This acquaintance with the instructors benefited her to obtain the instructors' complete willingness to participate, though they were required to invest a considerable amount of time and energy in providing the necessary data. Besides, the university has geographic proximity to the area where the researcher currently resides. This helped the researcher to efficiently manage her time and energy mainly for the research work.

3.2.2. Participants of the Study

According to the profile of instructors in the Department of English Language and Literature, there were 36 instructors. Among this number, fourteen of them were on study leave. Therefore, only 22 instructors (M=18, F=4) were on duty. Their teaching experience varied at different ranges (<10, 10-20, and >20). Seven instructors in the department specialized in linguistics (N=2), journalism (N=3), and literature (N=2). Three instructors, one from each specialization, were Ph.D. holders. The majority of the instructors (N=15) specialized in TEFL. Three of them were Ph.D. holders, while the twelve instructors were MA graduates.

It was indispensable to select a manageable number of participants among the 22 instructors using criteria with adequate rationale. In a case study, the purpose of generating a rich understanding of a phenomenon instead of population representativeness determines the selection of participants (Yin, 2018). Purposive sampling was, therefore, used to select instructors. This sampling technique serves to select individuals who can provide elaborated and varied insights concerning a phenomenon under investigation (Cohen et al., 2007; Dornyei, 2007; Stake, 1995). Accompanying this sampling technique, the researcher employed sampling criteria to identify the target participants. As Vanderstoep and Johnston (2009) stated, the sampling criteria are determined by the research objectives or the purpose of the study so that cases with similar, different, or typical features participate in the study.

As the first criterion, instructors who offer the Communicative English Language Skills II course were identified. The rationale was that writing lessons obtained better coverage in this course compared to the other common course- Communicative English Skills I. This facilitated the

possibility to generate data concerning the instructors' classroom decisions in promoting students' CT skills when teaching the writing lessons in the course. Because Communicative English Language Skills II is a mandatory course, it is delivered to first-year students across the departments. Most of the instructors in the English language and literature department offer the course regardless of their field of specialization. In this study, however, instructors specialized in TEFL/ELT were selected. These instructors were identified due to their relatively better familiarity with the present issue compared to the other instructors in the department. They were more accustomed to relevant issues such as the available teaching approaches, the quality of activities, feedback provision, and other recent advancements in the field. These instructors were, therefore, optimal for providing detailed illustrations to questions posed in the study.

Along with their specialization, the instructors' teaching experience was considered as a selection criterion. Thus, the selection of the instructors was made based on the teaching experience categorized in three ranges (<10, 10-20, and >20). Several intellectuals (Borg, 2003; Tsui, 2011) elucidated the role of teaching experience in influencing teachers' beliefs about teaching and learning and their classroom decision. This variation of instructors in teaching experience contributed to obtaining multiple insights concerning the present issue. Identifying the variation in instructors' characteristics in light of their experiences was, however, beyond the scope of the study. The focus was on involving instructors with different experiences to generate elaborate and high-quality findings.

Based on the criteria, six instructors were selected. In a multiple case study, Duff (2006 cited in Dornyei, 2007) denoted the sufficiency of involving 4-6 focal participants with a rationale that 3-4 subjects remain if attrition occurs among participants. The involvement of the target instructors was ultimately determined by their consent and accessibility. The study demanded conducting repeated classroom observations and rigorous formal interviews before and after each observation. This required instructors' cooperation in permitting observations and their willingness to arrange the time for the interview sessions. The study was conducted after providing them precise information about the purpose and procedure of the study, and assuring them about the anonymity of the observations and interview data as well as the data analysis.

Apart from the instructors, students of each of the participating instructors were involved due to some reasons. Students are the direct recipients of instructors' decisions. Therefore, they have abundant and first-hand experience of events in writing class more than instructors and a third party (observer). Their perception, beliefs, and attitudes towards the content and instruction of writing influence the goal aimed to be achieved despite the approaches instructors implement in writing classes (Mesfin, 2013). Besides, data from students embrace the aggregate of ideas from several students compared to observations that often involved the judgment of one or two individuals (Brok, 2001). The data from students, therefore, assisted to portray the exact situation concerning instructors' practices of promoting students' CT skills in writing classes. Comprehensive and detailed insights about instructors' practices in promoting students' CT skills in writing classes were constructed based on researchers' observations, instructors', and students' responses. Data was generated from all students in these classes so that a broad description of the classroom situation was gained.

Table 2. *Demographic information of the participants*

Pseudonym	**Gender**	**Qualification**	**Teaching Experience (years)**	**No. of students**			**Fields of study**
				Male	**Female**	**Total**	
Tilahun	M	PhD in TEFL	35	27	19	46	Law
Natnael	M	PhD in TEFL	13	18	28	46	OSS
Wendu	M	MA in TEFL	14	16	22	38	OSS
Markos	M	MA in TEFL	6	18	18	36	OSS
Biruk	M	MA in TEFL	13	24	5	29	PE
Elsabet	F	MA in TEFL	7	37	12	49	PE
-	-	-	-	140	104	244	-

As depicted in Table 1, the teaching experiences of the instructors were presented in years. A pseudonym was used instead of the actual names of the instructors to maintain anonymity. Except for Tilahun with more than 20 years of teaching experience, the three instructors' teaching

experience varied from 10-15 years. Unlike the others, Markos and Elsabet had less than 10 years of experience. Two of the instructors were Ph.D. holders in TEFL, while the other four were MA graduates in TEFL. The total number of student participants was 244 varying from 29 to 49 students in each class.

3.3. Data Collection Methods

3.3.1. Classroom Observation

The observation supports generating plentiful data that helps to sufficiently address the research questions. It involves a direct collection of data that describes the 'live' occurrence of the phenomenon in the actual context where the main actors participate (Cohen et al., 2007). Using classroom observation, therefore, the researcher examined instructors' practices of promoting students' CT skills in writing lessons, and some prevalent factors during the teaching-learning process. Besides, observation is a means to elicit participants' meaning behind their practices. The way instructors conduct the teaching-learning process, regulate classrooms, and examine activities portray their implicit meaning (Thomas et al., 2001). The difficulty to detect specific behaviors using other methods (e.g., interview, questionnaire), thus, illuminates the significance of conducting the observation. Through observation, therefore, it was possible to scrutinize how the instructors' reported practices were exhibited in their actual behavior in the classroom. This method was ideal to address the second and fourth research questions.

To gain a holistic understanding of events in the classroom, the researcher conducted the observation using field notes and a semi-structured observation protocol. Bogdan and Biklen (2007) characterized field notes as "the written account of what the researcher hears, sees, experiences, and thinks in the course of collecting and reflecting on the data in a qualitative study" (p. 119). The researcher recorded notes that involved descriptive and reflective notes. A description of all the scenes including the classroom condition, the behavior of the participants, and other events that occurred in the writing classes were documented. Additionally, reflective notes that included personal opinions, impressions, confusion, and questions on observed scenes, interactions, and practices during the observation sessions were incorporated. Along with supporting the collection of in-depth data, these notes helped the researcher to identify crucial

points that demand further elaboration from the instructors during the stimulated recall interview sessions (See Appendix H for a sample observation report).

The field notes were corroborated with a semi-structured observation protocol to avoid the unconscious tendency of undermining relevant incidents in the classroom. The checklist incorporated themes such as the physical organization of the classroom, instructional strategies, classroom interaction, instructional activities, and the nature of feedback/ comments. The theme of 'physical organization of the classroom' embraced specific lists concerning the layout of the classroom and the positions of both the instructor and the students. The category of instructional strategies contained details on teaching strategies with peculiar features of CT skills (analysis, synthesis, and evaluation) that the instructors may employ in writing class. The other area that contained the details about the ways of interaction between the instructor and students and among students is the category of 'classroom interaction'. Under the category of 'the type of teaching materials/resources', a focus was given to the material the instructor uses in addition to the communicative English II course module. The nature of the writing activities and the ways students perform the activities were the concern of the other group 'instructional activities'. Moreover, the ways students were given feedback and the focusing areas of the feedback were the other aspects included under the group of 'the nature of feedback/comments'. The main themes and the specific points served as a framework to concentrate on the construct of students' CT skills in writing lessons (See Appendix G for a sample observation using the tool).

The observation protocol was designed based on insights generated from scholarly works. Written literature on CT (Al-Kindi & Al-Mekhlafi, 2017; Choy & Cheah, 2009; Gregory, 2011; Meng, 2016; Paul & Elder, 2002) contributed to identifying specific aspects of CT that can be incorporated under the main themes. Similarly, ideas on the nature and structure of classroom practices, and specific activities in writing class were generated from the literature that focused on writing skills (e.g., Birhanu, 2012; Kitaw, 2017; Meseret, 2012; Mesfin, 2013).

The researcher conducted the observation by adopting a non-participant observation approach. In espousing this approach, she avoided any interference in the actual occurrences in the classroom. She instead sat in the back seat and recorded accounts of particular events. A digital voice recorder (Sony UX560) was employed to enhance the quality of data generated through observation. This recorder was optimal in recording the lectures, and dialogues between the instructor and students.

Employing all these mechanisms, the researcher conducted frequent observations of each of the six instructors' writing lessons. Yin (2014) stated that frequent observation of a particular case contributes to closely examining relevant events related to classroom practice and gaining in-depth information. As depicted in Table 3, a total of eighteen writing sessions were observed from November 25, 2022, through February 7, 2023.

Table 3. *A Description of Observation Sessions*

Instructors		**Date and Time**		
		Day One	**Day Two**	**Day Three**
Tilahun	Date	Dec. 2, 2022	Jan.13, 2023	Feb. 3, 2023
	Time	9:00am-10:00am	10am-11:00am	11am-12:00am
Natnael	Date	Dec. 21, 2022	Jan. 11, 2023	Feb. 7, 2023
	Time	11:00am-12:00 am	11:00am-12:00 am	10:00am-11:00 am
Wendu	Date	Dec. 2, 2022	Jan. 17, 2023	Feb. 3, 2023
	Time	10:00am-11:00am	4:00pm-5:00pm	10:00am- 11:00am
Markos	Date	Nov. 29, 2022	Dec. 20, 2022	Jan.17, 2023
	Time	10:00am-11:00am	10:00am-11:00am	10:00am-11:00am
Biruk	Date	Nov. 25, 2022	Jan. 5, 2023	Jan. 27, 2023
	Time	2:00pm-10:00pm	8:00am-9:00am	2:00pm-4:00pm
Elsabet	Date	Nov. 28, 2022	Dec. 21, 2022	Jan. 18, 2023
	Time	8:00am-10:00am	9:00am-10:00am	9:00am-10:00am

The average time for an observation session was 1:50 hours. Each case was observed three times. The frequency of the observation could not be extended as 'theoretical saturation' or the possibility of generating new insights decreased (Charmaz, 2006).

3.3.2. Interview

As compared to the other methods (e.g., observation, questionnaire), the interview allows respondents to broadly elaborate ideas, interpretations, and meanings behind actual scenes in classrooms. People provide different explanations and meanings about a phenomenon. For instance, despite some mutual understanding, each instructor has his/her conception about promoting students' CT skills in writing classes. It is unlikely to obtain a complete understanding of instructors' meanings based on their classroom practice since some behaviors are unobservable. Interviews, therefore, help to access the minds of participants to understand their preferences, values, perspectives, and beliefs (Cohen et al., 2007). The interview data was used to respond to the first, third, and fourth research questions.

The interview was conducted using a semi-structured interview guide. This interview structure was preferred since it has a flexible and fluid format (Mason, 2002). This nature helps to evoke in-depth inquiry and explanation as the participants and the interviewer construct unexpected themes during the process of an interview (Cohen et al., 2000; Mason, 2002; Yin, 2014). The interview served to construct a broader understanding of instructors' beliefs and practices as well as factors related to promoting students' CT skills in writing lessons. Eleven items with specific themes that aimed to address the research questions were used for the interview (see Appendix B). These items were designed and refined based on insights from scholarly works (Bataineh & Alazzi, 2009; Gregory, 2011; Kanik, 2010; McIntyre, 2011; Mehta, 2015; Paul et al., 1997; Rademaekers, 2018; Stapleton, 2011).

The interview guide started with items about the instructor's background information and proceeded to the instruction of writing. Probing questions with an implicit (non-direct) focus on the aspect of students' CT promotion were attached to the interview items that focused on writing instruction. These questions were designed to generate genuine responses from instructors without worrying to incorporate explanations about CT. Items that explicitly emphasized the promotion of students' CT in writing skills gained prominent focus. These questions helped to tap into the instructors' consciously held beliefs about CT, the standard of the course module in light of CT promotion, and factors in the promotion of students' CT skills in writing class. Apart from the main questions, probing questions emerged from the interviewees' responses.

The researcher carried out the interview after the completion of the observation sessions and the subsequent stimulated recall interviews. The interview session was kept to the last stage to

minimize artificial classroom behavior. The interview session was, therefore, started on January 23, 2023, and ended on February 9, 2023. Some gaps were left between the time the last stimulated recall interview was conducted and the main interview was held. This helped the participants to be ready for the subsequent session in which responses were demanded in light of their overall teaching experience. The interview took an average of 1:17 hours. Due to its convenience and absence of distracting sound, the researcher carried out the interview with each participant's respective office. A digital voice recorder (Sony UX560) was used after receiving the consensus of the participants to use the tool. The verbatim transcription of the interview was then given to the participants for further validation of the contents.

3.3.2.1. Pre-observation Interview and Stimulated Recall Interview

3.3.2.1.1. Pre-observation Interview

Different interview sessions were conducted accompanying the observation. Pre-observation interviews (POI) were carried out before each observation session. These interviews were used to examine the instructors' plans that served as a point of reference to explain their classroom practices. The questions emphasized the instructors' preference for contents, activities, teaching methods, rationales behind these preferences, and their prediction of challenges in the classroom and the solutions they planned to take.

The first pre-observation interview was carried out with Biruk on November 25, 2022. Including this interview, the other five pre-observation interviews that preceded the first observation sessions were conducted in a relaxed manner. This technique aimed at minimizing possible stress on the instructors until they become familiar with the process of the study. The subsequent pre-observation interviews, however, were conducted in the instructors' offices before entering the class. In general, eighteen pre-observation interviews that took 10-20 minutes were performed using a digital voice recorder (Sony UX560) (see Appendix I for a sample of POI).

3.3.2.1.2. Stimulated Recall Interview

Stimulated recall interviews (SRI) followed each observation session. According to Zheng (2015), a stimulated recall interview is "a way to elicit teachers' thought processes at a certain moment. This form of retrospective recall stimulated the teachers' memory of their performance and thinking in a lesson" (p.9). The stimulated recall interviews assisted to validate the observed

practices as explanations were provided by the instructors. The instructors' rationalization of the scenes in the classroom gave elaboration on how the teaching-learning process embraced the elements of CT. It was also possible to identify factors that caused the disparity between the planned and the accomplished tasks. Data generated from these interviews served to address all four research questions.

The stimulated recall interviews involved several items. Because there was variation among the participants' classroom practices, items for the interviews were designed in light of each of the participant's specific classroom actions. The questions, however, emphasized certain themes such as the implementation of CT aspects, rationalizations behind specific classroom actions, challenges, and possible solutions, and reflections on the overall teaching-learning process. The stimulated recall interview was supported with segments of the audio record, and field notes that embraced the description of the participants' practices as well as questions and confusion on occurrences during the observation sessions (see Appendix J for a sample of SRI).

Certain precautions were taken when conducting the stimulated recall interview. To avoid the possibility of forgetting relevant instances, the researcher conducted the interview on the same day each observation was conducted. This was carried out based on the respondents' adjustment of time. The time span of the interviews varied from ten to thirty minutes, and each was voice recorded. The first stimulated recall interview was conducted on November 25, 2022, the same day the first classroom observation was performed. Likewise, the last stimulated recall interview was carried out on February 7, 2023. All of the interviews were held at the respective offices of the participants.

3.3.3. Students' Questionnaire

A questionnaire is one of the sources of evidence in a multiple case study (Yin, 2014). A questionnaire of Students' Perceptions of the Promotion of CT in Writing (SPPCTW) was used to generate data from the students concerning the practices of the instructors during writing classes. The tool is suitable to generate a large amount of data concerning the views, feelings, or reflections of many students (Dornyei, 2007; Miler & Brewer, 2003). Comprehensive data was gained by accessing students' experiences of events in writing class. They reflected on the frequency that the instructors employed CT promoting interactions, instructional mechanisms, writing activities, and feedback/comments. Additionally, a questionnaire enables respondents to take a relatively

considerable amount of time to understand and respond to the items (Kothari, 2004). As a result, apart from eliciting a substantial amount of data, it was possible to obtain quality data pertinent to existing situations in writing classes. Students' responses to the items, therefore, surpass a random reflection. Data generated through this method contributed to address the second and third research questions.

The tool incorporated 38 close-ended items. It was designed based on scholarly works, particularly in the areas of CT ability (e.g., Al-Kindi & Al-Mekhlafi, 2017; Chen, 2017; Gregory, 2011; Kusaeri & Aditomo, 2019; Özkan-Akan, 2003; Paul & Elder, 2002) and writing skills (e.g., Alamirew, 2005; Eyerusalem, 2020; Habtamu, 2018). In the first part of the questionnaire, students respond to questions about the background information by putting 'ticks' in the boxes and writing on the blank spaces. The second part contained items that were constructed with a 5-point Likert scale ranging from 'never' to 'always'. Students were instructed to circle one of their preferences. In this part, the items were presented in four categories: classroom interaction, instructional mechanism, nature of writing activities, and system of feedback provision (see Table 4).

Table 4. *Description of the SPPCTW*

Themes	**Description**	**Sample Item**
Classroom Interaction (11 Items)	The degree to which students get the opportunity to interact with the instructor and with their colleagues.	The instructor gives me a chance to share my opinion (item 1).
Instructional Mechanism (13 items)	The degree to which students get different assistance during the process of writing	He/she gives me examples of how to develop ideas logically in writing (item 24).
Nature of writing activities (8 items)	The degree to which students get the chance to do CT stimulating writing activities.	The instructor allows me to do reflective writing activities (item 26).

System of feedback provision (6 items)	The degree to which students engage in giving and receiving CT-triggering feedback.	The instructor gives me comments throughout the process of writing (item 33).

The instrument was administered to students after the completion of the course. It was necessary to wait for students to learn all the writing lessons incorporated in the course to generate complete responses from students. A comprehensive sampling technique was employed. The questionnaire, therefore, was administered to all the students in the six classes to obtain extensive responses from students. The administration of the questionnaire to students across the six sections was completed on February 28, 2023. They took 20-25 minutes to finalize filling out the questionnaire (see Appendix C).

3.3.4. Students' Essay Writing

Students' essay writing was indispensable to examine the students' CT and writing performances. Their performances were examined in line with instructors' beliefs and practices in promoting students' CT in writing classes. The instructors' beliefs about the students' CT and writing performances were elaborated with the students' performances in the essays. The instructors' classroom practices including their preference for classroom interaction, instructional mechanisms, nature of writing activities, and provision of feedback was expected to contribute to students' performances. This method was used to address the third research question.

Students, who have been taught writing by the six instructors, were asked to write the essays. Thus, all 244 students in the six sections wrote the essays. They wrote two essays at different times in the semester. Students were asked to write the first essay (essay 1) before they began to learn the course-communicative English language skills II. The second essay writing (essay 2) followed the last lesson of the course. The analysis of students' essay 1 writing was used to indicate their level of CT and writing performances before learning the writing lessons in the course. It was used as a benchmark to interpret the students' CT and writing performances in essay 2. Additionally, the students' CT and writing performances in essay 1 served to understand the instructors' beliefs about their students' performances. Moreover, the analysis of essay 2 was used to assess the contribution of the teaching-learning process of writing lessons on students' CT and writing performances.

The students wrote the two essays on two different topics. The topics were chosen by their instructors from the four topics that were proposed by the researcher. The four topics were selected from IELTS (n.d.). This source was preferred since it is standardized; it involved topics that are suitable for students in different contexts. Besides, the topics are designed on varied issues so that there was ample chance for selection.

The four topics were as follows:

1. Do you agree or disagree with the following statement? Only people who earn a lot of money are successful. Use specific reasons and examples to support your answer.
2. Do you agree or disagree with the following statement? Classmates are a more important influence than parents on a child's success in school. Use specific reasons and examples to support your answer.
3. It is sometimes said that borrowing money from a friend can harm or damage the friendship. Do you agree? Why or why not? Use reasons and specific examples to explain your answer.
4. Some people believe that university students should be required to attend classes. Others believe that going to classes should be optional for students. Which point of view do you agree with? Use specific reasons and details to explain your answer

These topics demand students to write an argumentative type of essay. The argumentative essay was preferred since it was relatively easy to detect CT indicators in the written text. This essay type was expected to give students a comprehensive opportunity to reveal their CT ability in their writing while logically presenting ideas. By considering 'topic familiarity' as a criterion, the instructors selected the first and the third topics. The first topic- *Do you agree or disagree with the following statement? Only people who earn a lot of money are successful. Use specific reasons and examples to support your answer*- was used in essay 1 writing. The third topic- *It is sometimes said that borrowing money from a friend can harm or damage the friendship. Do you agree? Why or why not? Use reasons and specific examples to explain your answer*- was used in essay 2 writing.

The six instructors were responsible to inform students about the essay writing. While discussing with the participants, the researcher was convinced that students seriously consider the essay writing if they were informed by their respective instructors. The instructors, thus, communicated

two points to their students. Firstly, they introduced the topics to their students and clarified how they should carry out the task. To ease this process, a sheet that contained the instruction and topic was distributed to each student. Secondly, the instructors boldly informed students to avoid plagiarism either from their colleagues or from the internet. The latter instruction was needed since students were allowed to write the essays after class due to a shortage of time to accomplish them in class.

3.3.4.1. The Essay Writing Evaluation Rubrics

The students' writing performance in essay 1 and essay 2 was assessed using an ‘evaluation criteria for writing skill’. This evaluation tool contained criteria such as content, organization, vocabulary, language use, and mechanics. These five elements were rated in light of a 5-point scale ranging from "very good" to "very poor". The rubric was adapted from Jacobs et al. (1981). Two major reasons were accounted for using this tool. Firstly, because the rubric considers the various aspects of writing skills, it provides detailed and comprehensible information about students' writing performance. Secondly, being used in several studies (e.g., Fahim et al., 2014; Indah, 2017), it was confirmed that the tool assists to assess students' writing skills accurately and consistently.

The adaptation of the tool was made in certain areas. The writing indicators such as content, organization, vocabulary, language use, and mechanics were adopted from the source. The adaptation was carried out on the description of the indicators and the scale. Jacobs et al's. (1981) rubric was designed in a 4-point Likert scale that ranges from very poor to excellent. Besides, the authors used phrases and terms to describe the writing skill indicators in light of the ranges. Thus, to enhance the clarity of the tool and thereby ease the process of scoring, the researcher modified the scale to embrace a 5-point Likert scale. Additionally, the researcher transformed the phrases and the short terms that were used to describe the indicators into statements (see the tool in Appendix D). Students’ written essays were marked out of 25% using this tool.

Students' CT performance in their writing was assessed using an 'evaluation criteria for CT in writing'. It contained nine indicators such as clarity, accuracy, precision, relevance, depth, breadth, logic, significance, and fairness. These elements were presented on a 5-point scale ranging from 'very good' to 'very poor'. The evaluation criteria were adopted from Dong (2015) due to some rationales. The tool, which was designed in correspondence with Paul and Elder's (2002)

intellectual standards, was particularly prepared for evaluating students' CT in their composition. Because each CT indicator/element was precisely described, the instrument was comprehensible and suitable for implementation. Moreover, there is a dearth of empirically tested CT standards, particularly in the context of writing skills. Besides, the reliability test of the evaluation criteria by Dong (2015) produced high reliability with r=0.88. This tool, hence, was ideal to evaluate students' CT performance in their essay writing statements (see Appendix E). The students' CT performance in the two essays was marked out of 45%.

The students' essays were evaluated by the researcher and an experienced instructor in the area of ELT. The instructor (Mulualem) was an MA graduate in TEFL and had 13 years of teaching experience in different public universities including Debre Tabor University. After receiving his willingness to mark the essays, the researcher offered him a brief training on the concept of CT, CT, and writing skills, the components of the rubrics, and the scoring procedures. Before handing the essays (essay 1 and essay 2) to the rater, the students' names were substituted with codes to retain their anonymity. The students' CT and writing performances were, therefore, computed by calculating the average result between the researcher's and the instructor's scores.

3.3.5. Document Analysis

Document analysis was employed to gain additional information related to instructors' practices in promoting students' CT in writing classes. Leavy (2017) explained document analysis as a strategy for "systematically investigating texts" to generate the meaning conveyed in texts (p. 146). As the commonly used source of evidence in a case study, documents help to gain detailed information that strengthens data generated through other data instruments such as observation, interviews, and questionnaires (Yin, 2014).

Writing activities that the instructors used while delivering the writing lessons were identified for analysis. Most of the writing activities that were employed during the writing lessons were found in the communicative English language skills II course module. This material was extensively used by both the instructors and students during the writing lessons. The nature of the writing activities in the module was expected to influence the instructors' classroom practice. Analyzing how the writing activities in the module entertain the CT, thus, gave valuable insight into the instructors' actions. Additionally, writing activities that were brought by the instructors were also analyzed. This method was employed to address the second research question.

A guiding framework was used to perform the analysis of the writing activities. Employing a guiding framework that included specific and on-target points related to the main emphasis of the study made the analysis to have focus and depth. The guiding framework incorporated eleven items under the theme 'the nature of writing activities'. These items aimed at assessing how the concept of CT or CT elements (analysis, synthesis, and evaluation) were embraced in the writing activities to aid the promotion of students' CT in writing class. The guide was designed based on ideas generated from literature. Guiding frameworks that were used in CT-oriented studies (e.g., Alfares, 2014) were contemplated. These sources served as a base for designing and refining the items. Material evaluation tools that were employed in English language studies (e.g., Abdelwahab, 2013; Aftab, 2011; Dereje, 2012; Lawrence, 2011) were consulted. The researcher, thus, designed the guide based on insights generated from these scholarly works (see Appendix F).

3.4. Reliability and Validity of the Instruments

Ensuring the reliability and validity of the research instruments was indispensable to enhance the quality of data and thereby secure meaningful interpretation of the data. Reliability indicates the consistency of an instrument, while validity focuses on whether the items in the instrument are appropriate in reflecting the central construct in the study (Bryman, 1989). Validity and reliability are integral issues. Reliability is a prerequisite condition to obtain validity. Reliability, nonetheless, does not guarantee to achieve validity (Johnson & Christensen, 2014). Therefore, both reliability and validity are necessary components. Based on this conceptualization, the reliability and validity of the data collection methods that were used to generate data were examined.

3.4.1. The Reliability and Validity of Observation Data

The reliability and validity of the observation data were maintained using different mechanisms. The reliability of the observation data was maintained through data triangulation, frequent observation, and note-taking. Triangulating the observation data minimizes the observer's subjective judgment of the classroom events. Cohen et al. (2007) explained that "Observation can only record only what happens, and it may be dangerous, without any other evidence, e.g. triangulation to infer the reasons, intentions and causes and purposes that lie behind actors' behaviors" (p. 411). Hence, the observation data that was generated through the field note and the

semi-structured observation guide was accompanied by stimulated recall interviews. Respondents were asked for their reflection and rationalization on events that occurred in the classroom.

The reliability of observation data was retained by maximizing the frequency of observation. As the frequency of observation increases, there is a possibility of developing a better understanding of the participant's behavior (Cohen et al., 2007). This understanding would be created as participants revert to the usual behavior. Likewise, Cohen et al. (2007) stated that “the greater the number of observations, the greater the reliability of the data might be, enabling emergent categories to be verified" (p. 427). A frequent observation was, therefore, conducted; each of the six participants was observed three times. So, a total of eighteen observations were performed. This supported the refinement of the themes and specific details incorporated in the semi-structured observation guide that resulted in added elaboration on the observed instances. Additionally, ample time was spent with the participants having informal discussions so that the participants not only became more familiar with the researcher's presence but also revealed more of their behavior.

Moreover, note-taking was the other means by which the reliability of the observation data was achieved. Writing notes immediately after the observation facilitates the process of analysis. Hence, along with using the observation guide and field note, a 'memo' was used to extend the notes on classroom scenes.

The validity of the observation was promoted by using different strategies such as getting comments on the observation guide, operationalizing the indicators, and employing audio records. Comments were sought on the semi-structured observation guide after it was designed. Besides the advisor, three experts in the area of ELT were requested to comment on the tool. Nonetheless, without providing any particular comment on the tool, they suggested the use of a field note along with the guide. The tool was further refined during the pilot study.

The other means the validity of the observation data was maintained by providing a clear operational interpretation of the categories or themes formulated in the guide. Providing such clarification helps to create a common understanding of the construct to be observed. Cohen et al. (2007), in this regard, denoted that "researchers have to ensure that the indicators of the construct under investigation are fair and operationalized, so that there is agreement on what counts as

constituting qualities such as 'friendly', 'happy', aggressive, sociable and unapproachable" (p. 411). The themes in the guide were, therefore, interpreted as explained in section 3.3.1.

The validity of the observation data was further ensured through an audio recording of the observation. It is unlikely to record every event in the classroom through note-taking or an observation guide. It was rather necessary to detect lectures, dialogues, and other verbal interactions using the audio record.

3.4.2. The Reliability and Validity of Interview Data

Different strategies were used to ensure the reliability and validity of the interview data. One way of maintaining the reliability of the interview data is by employing the same interview items across different participants (Cohen et al., 2000). According to Oppenheim (1992 cited in Cohen et al., 2000) "changes in wording, context and emphasis undermine reliability, because it ceases to be the same question for each respondent" (p.138). Although a semi-structured guide was used in the present study, it was attempted to maintain everything the same for all the participants. A similar sequence of items, wording, procedures, and way of recording was employed except for the inclusion of probing questions that stemmed from the participants' responses.

The validity of the interview guide was controlled by receiving the evaluation of the advisor, experts, respondents, and pilot-testing. Following the completion of designing the interview guide that involved 14 items, comments were sought from the advisor. Comments that focused on the use of some terms and expressions, as well as the relevance of some items in the guide, were received. For instance, the importance of the last item in the guide "Is there anything else you would like to add?" was questioned. The guide was modified according to the advisor's comment before receiving the judgment of experts in the area of ELT.

The three experts, who were all Ph.D. candidates in ELT, were asked to comment on the clarity, coherence, length, relevance of the questions, and the overall standard of the guide. Comments on conceptual errors as well as the use of ambiguous terms and overloaded items were the areas the experts focused on. For example, one of the experts asked for the existence of 'writing instructors' as there is no expertise specialized particularly in this area. He picked this from the title of the interview guide. Likewise, the other expert signified the necessity of revising item 10, which focused on comparing writing classes where students' CT is promoted with the opposite.

Additionally, after interviewing the participants during the pilot study at Wolkite University, the researcher asked for their comments on the quality of the guide in terms of the wording, the relevance, and the logical organization of items. Based on the insights generated, the researcher merged item 6 '*What comes to your mind when you hear the term CT in the context of teaching/learning writing*?' with item 7 '*How can you relate/ associate CT with writing*?' The main study was, thus, conducted using the interview guide that embraced 11 items.

Although the guide could be helpful to conduct the interview, the validity of the interview data can be sustained when there is mutual understanding between the interviewer and the respondents. The existence of misconceptions between the interviewer and the respondent minimizes the validity of the interview. This occurs when the interviewer fails to understand what the respondent communicates and when the respondent is confused about what is being asked (Cohen et al., 2000). To reduce this problem, each participant received the verbatim transcription and asked for any form of addition, deletion, or modification of ideas.

3.4.3. The Reliability and Validity of Students' Questionnaire

The reliability of the questionnaire was checked using internal consistency reliability. Besides internal consistency which is mainly used to check the internal consistency items in the questionnaire, there are also other methods such as test-retest and equivalent forms. Because the main aim of test-retest reliability is to assess the consistency or stability of the instrument over time, there is a need to administer the tool twice. In equivalent forms reliability, instruments that have equivalent forms or tools that measure the same construct are needed so that the consistency of response in the tools would be checked (Johnson & Christensen, 2014). Among these methods, internal consistency reliability was preferred since it demands the administration of the instrument once. The questionnaire was, thus, pilot-tested on 161 first-year students from Wolkite University in 2021. The Cronbach's alpha of the instrument (0.80) indicated that the questionnaire was reliable based on the guidelines of Cohen et al. (2007).

Some mechanisms were employed to control the validity of the questionnaire. Maintaining the content and face validity of the questionnaire were the areas of emphasis. In face validity, the aim is to check whether the instrument 'appears' appropriate and helpful to measure what it is supposed to measure. The concern of examining content validity, on the other hand, is to evaluate whether the items in the questionnaire are appropriate to measure the main construct in the study.

Consequently, after the questionnaire was designed, the advisor commented on it. The comments focused on the errors in using the language and some terms. Besides, suggestion on the reduction of some items was provided. Initially, the questionnaire incorporated 69 items. The tool was, thus, thoroughly revised and 26 items were reduced.

Further comments on the 43 items questionnaire were sought from a panel of experts in the area of ELT. These experts commented on the questionnaire using 'a questionnaire validation form' that was adapted from Niguse (2013). The principal purpose of using this validation form was to generate comments on relevant areas. This, however, did not restrict the experts' attempt to add further feedback. The experts' comments targeted three areas: clarity, conceptual relationship between some items, and the logical arrangement of items. In light of the comments, a revision was made on items with ambiguous expressions. Besides, some items were reshuffled to maintain their logical order, while others were replaced, or deleted (see Table 5). Therefore, 38 items were pilot-tested.

Table 5. *Revision of Students' Questionnaire*

Original Item	**Measurements taken**	**Revised item**
The instructor wants me to construct error-free statements.	Replaced	He/she encourages me to examine the role of different expressions, words, and ideas when preparing to write.
He/she provides me the opportunity to reflect on my writing in terms of word choice, organization, grammar, and mechanics.	Modified	He/she provides me the opportunity to reflect on my writing.
He/she promotes the practice of doing writing tasks individually.	Deleted	-
He/she is **NOT** concerned about the way I develop ideas in my writing.	Deleted	-
The instructor lectures factual information about writing skills.	Deleted	-

He/she illustrates the appropriate use of vocabulary and mechanics in writing.	Deleted	-
He/she gives me only the result I scored in my written text.	Deleted	-

Moreover, comments were sought from the students who filled out the 38 items questionnaire during the pilot study at Wolkite University. Students were requested to comment on the clarity of the words or statements, the appropriateness of the statements, and the overall structure of the tool. They were told to express their feedback either orally to the researcher or write on the sheet. Besides the students' feedback, the researcher recorded some points concerning the tool while students posed questions and seemed puzzled/confused. Based on comments received from the students, the researcher revised item 3 '*'He/she initiates me to engage in provocative arguments related to a topic for writing*' to '*He/she initiates me to make arguments related to a topic for writing*' [revised]. Similarly, item 10 '*He/she encourages me to be flexible to handle opposing ideas on a certain topic*' was revised to '*He/she encourages me to handle opposing ideas on a certain topic*' [revised]. The main study was, therefore, conducted using a reliable and validated questionnaire that embraced 38 items.

3.4.4. The reliability and validity of the essay writing rubrics

The rubrics were piloted at Wolkite University in the 2021/22 academic year, and their reliability was checked using the inter-rater reliability method. The reliability was computed using the Intra-class Correlation Coefficient (ICC). The ICC result of the 'evaluation criteria for writing' produced 0.91. Similarly, the ICC result of the 'evaluation criteria for CT in writing' yielded 0.90. In both cases, the results indicated excellent reliability based on Koo and Li's (2016) cut-off point.

Moreover, comments were sought on the rubrics from the advisor, the three experts, and the rater to ascertain the validity of the tools. Nonetheless, a comment that triggered any modification of the rubrics was not received. These rubrics were, therefore, suitable for the main study.

3.4.5. The validity of the document analysis criteria

Similar to the other instruments, the validity of the document analysis criteria that were designed to evaluate the writing activities in the Communicative English Language Skills II course was

checked. Comments on it were provided by the advisor and the three experienced instructors. For instance, a comment on the pertinence of one of the items “Are the exercises adequate, purposeful and interesting?" was among the others. They considered this item as a misleading item that produces subjective results. In addition, the researcher's use of words such as 'tasks' and 'activities' in an almost interchangeable way was the other area comments were received. The instrument was subsequently modified considering the feedback.

3.5. Data Collection Process

The overall data collection process was carried out for four months. Starting from November 9, 2022, the data collection continued until it was completed on February 28, 2023. The researcher began recruiting cases and requesting their willingness to participate in the study on November 9, 2022. For this purpose, she initially briefly explained the purpose of the study to the department head, who later gave her the necessary information about the instructors' profiles. As elucidated in section 3.2.2, six instructors were selected and gave their consent to participate in the study after the researcher informed them about the purpose and the nature of the study.

The researcher later discussed with the instructors about their selection of an appropriate topic for essay 1. Since the instructors agreed on a topic, a sheet that contained the topic and the instruction for the activity was prepared. The instructors introduced the essay writing to students during the second class session after the first term teaching process was started on November 14, 2022. Students were informed to bring the essay the following day.

Although the teaching process was started, the researcher had to wait for some days to begin the observation session. In the meantime, she maintained a rapport with the participants to ease potential discomfort from instructors during the observation sessions. According to the instructors' schedule, the classroom observation was started on November 25, 2022. The instructors introduced the researcher to students during the first time classroom observation. All the observation sessions were performed accompanied by pre-observation interviews and stimulated recall interviews. The pre-observation interviews were conducted in each of the instructors' offices 20 minutes ahead of the class session. Instead of bothering the participants for the stimulated recall interview immediately after leaving the classroom, the researcher spent some hours having tea or lunch with them. This created a relaxed atmosphere between the researcher and the participants. These

moments were great assets to the researcher to informally generate elaborate and detailed information concerning the issue of the present study. The stimulated recall interviews continued at the moment the participants became ready. The main interview was conducted following the completion of the observation session and the subsequent stimulated recall interview.

The collection of the second essay (essay 2) writing was performed after the students completed taking the Communicative English Language Skills II course. Similar to essay 1 writing, students were asked to write essay 2 on a topic that was selected by the instructors. The instructors informed students to write the essay and bring it in the following day. By the time the students submitted the essay, the researcher administered the students' questionnaire. Students were informed about the purpose of the questionnaire and requested their cooperation. All the process of data collection was, therefore, completed on February 28, 2023.

During the process of generating data through all the mechanisms used in the study, the researcher retained writing a memo. The informal discussions that the researcher had with the instructors, and the researcher's reflections or opinions on the events that occurred during the observation sessions were the parts. Additionally, the memo contained the researcher's perspective on issues reflected by the subjects during the various interviews, and everyday events the researcher encountered.

3.6. Data Analysis

In a multiple case study, the data analysis and report involve a single case analysis and cross-case analysis (Yin, 2009). Therefore, each case was thoroughly analyzed, and the cross-case analysis was performed by synthesizing data from the single case in specific themes that were common to the cases. This approach aided to respond to the research questions systematically and coherently by integrating multiple interpretations, perspectives, and assumptions concerning particular issues.

The data that was generated from the cases through various data collection methods were analyzed using qualitative and quantitative data analysis methods. The qualitative data analysis method was manipulated to treat data generated through observations, and interviews including the main interview, the pre-observation interviews, and stimulated recall interviews. This analysis aimed at addressing all the research questions. The analysis of the qualitative data involved three phases of coding: open coding, axial coding, and selective coding. Open coding is the initial coding that is performed either by repeating the same word or phrase of the participant or by assigning

researcher-derived coding. Axial coding is the process of connecting the open codes and forming a category, while selective coding is comprehensive and theoretical code that embraces all the codes (Charmaz, 2006; Merriam, 2009). A constant comparative method, which involves a continuous comparison and contrast of categories or ideas within and across the cases, accompanied the process of data generation, and coding (Charmaz, 2006). This supported the researcher in refining the codes and identifying focusing areas in the subsequent data generation process through interviews and observation. The coding process was accomplished using NVivo 10 software.

The quantitative data analysis method was employed to particularly address the second and the third research questions. Descriptive statistics (mean and SD) was computed to analyze the questionnaire data that was mainly used to respond to the second research question. Oxford's (1990) scale for 5-point Likert scale items was adapted to interpret the descriptive statistics. This scale is largely employed in numerous studies to examine the frequency of students' language learning strategy use. In the present study, Oxford's scale assisted to produce a meaningful interpretation of the questionnaire result by indicating the frequency of specific strategies instructors employed in writing classes. The scale presents three categories that the mean results can be grouped: high (3.5-5.0), medium (2.5-3.4), and low (1.0-2.4) frequencies.

Similarly, descriptive and inferential statistics were computed to address the third research question. Initially, the students' essays were scored by two instructors; as a result, the inter-rater reliability was computed using the Intra-class Correlation Coefficient (ICC). The ICC for students' writing performance in essay 1 was 0.80 and it was 0.95 in essay 2. Similarly, the ICC for students' CT performance in essay 1 produced 0.91, while it was 0.90 in essay 2. The results revealed excellent reliability according to Koo and Li's (2016) guidelines. The average score of the two raters was, therefore, employed as a final score in both the CT and writing performances of students. Descriptive statistics (mean, SD, frequency, and percent) was computed to examine students' CT and writing performances in essay 1 and 2. Dong's (2015) interpretation of the mean results of the students' CT and writing performance was used to understand the result. Thus, 1= very poor, 2= poor, 3= average, 4=good, 5= very good. The frequency and the percentage of the students' CT and writing performances were done by converting their results into 100. The transformed results were then presented in three ranges adopted from Habtamu (2018). Habtamu's

classification of ranges, which adheres to the grading system of Ethiopian higher education, indicates the high range (75-100), the average (50-74), and the low (<50). This was done to understand students' overall performances in the two skills.

Moreover, inferential statistics that involved a paired sample t-test, correlation coefficient, and multiple regression analysis were calculated. The paired sample t-test was computed to examine any possibility of a statistically significant difference in students' CT and writing performances in essays 1 and essay 2. This statistical procedure serves to compare the mean values of two measurements (e.g., essay 1 and essay 2) obtained from the same student. Besides, Pearson's r correlation coefficient was computed to examine the relationship between students' CT performance and writing performance. This statistical method was appropriate to check the correlation between two continuous variables (Muijs, 2004). On the other hand, the association between the SPPCTW and students' CT and writing performances was calculated using Spearman's rho correlation coefficient. According to Muijs (2004), spearman's rho uses to look at the relationship between an ordinal variable (e.g., SPPCTW) and a continuous variable (e.g., students' performances).

Furthermore, multiple regression was employed to assess how the SPPCTW predicts students' CT and writing performances. More specifically, the impact of the sub-scales of the SPPCTW (CI, IM, NWA, and SFP) on students' CT and writing performances was investigated. Multiple regression was the appropriate method due to its suitability to examine the contribution of each predictor or independent variable (e.g., the sub-scales) on the outcome or dependent variable (e.g., students' performances). The independent variable can be ordinal, continuous, or nominal, but the dependent variable has to be continuous (Muijs, 2004). Since this statistical measurement treats one outcome variable at a time, the effect of the predictor variables on the two dependent variables (students' CT performance and writing performance) was examined in isolation. The quantitative statistics, in general, were processed using SPSS version 25 software.

3.7. Trustworthiness of the Study

The trustworthiness of the study was maintained by ensuring the credibility, dependability, transferability, and confirmability of the findings (Merriam, 2009). Credibility focuses on the accuracy of the data or how the findings are consistent with reality, while dependability

emphasizes the consistency or reliability of the study. Transferability or external validity indicates the extent to which the findings of a study can be applied to other situations. Lincoln and Guba (1985, as cited in Merriam, 2009) denoted the minimum responsibility of the original researcher to prove the study. Instead, researchers who decided to apply the same procedure are accountable to confirm the transferability of the study. Moreover, confirmability indicates the extent the data and interpretation of the results are not defiled by the researcher's preconceptions. It requires the confirmation or corroboration of results by others' empirical findings (Mohamed, 2006).

The credibility and dependability of the results were secured using peer debriefing and member checks (Creswell, 2009; Merriam, 2009). Discussions with three experts in the English language teaching field were held concerning the plausibility of the data collection procedure, data analysis mechanisms, and the findings. Relevant insights of the experts contributed to the rigor of the study. Concerning member checks, the participating instructors received the final version of the study findings and the verbatim transcriptions of the observations and the interviews for their validation. This made the findings reflect the participants' actual voices.

Besides, the study involved a thorough description of the participants and the study findings, accompanied by the inclusion of quotes taken from the collected data to ascertain the transferability of the study. Additionally, an audit trail or a thorough explanation of the overall procedures that the study was conducted including the data collection and analysis process was provided. A memo that included an in-depth narration of events, informal discussions, and reflections throughout conducting the study contributed to refining ideas in the study. These mechanisms contributed to maintaining the dependability and confirmability of the results (Merriam, 2009).

3.8. Ethical Consideration

Ethical consideration was maintained using different mechanisms. Initially, the researcher formally requested the English language and literature department head to access the profile of the instructors in the department. Besides, obtaining the participants' (instructors and students) agreement to involve in the study preceded the data collection process. The participating instructors' convenient time was considered for the collection of data. To secure the anonymity

and confidentiality of the information, the researcher used pseudonyms. Similarly, students' names in the essays were replaced with codes, particularly during the scoring process.

3.9. Summary of the Pilot Study

The pilot study served to examine the quality of the data collection methods such as the interview and observation guides, the questionnaire, the document analysis criteria, and the students' CT and writing performances evaluation rubrics. The study was relevant to assess the viability of the data collection and analysis procedure. The quality of the findings and the feasibility of the study design, in general, were examined through the pilot study.

The study was conducted for three months from October 5, 2021, through December 24, 2021, at Wolkite University. This university was selected due to its contextual equivalence with Debre Tabor University. Adopting a multiple case study design, the researcher purposively selected three instructors from the English language and literature department along with all students (N= 161) in the three instructors' classes. The data collection method included classroom observations, interviews, students' questionnaire, essay writing, and document analysis. Field notes and a semi-structured observation protocol were used during the nine classroom observations. Each classroom observation was preceded by a pre-observation interview and followed by a stimulated recall interview. The main interview was conducted after completing all the classroom observations and the subsequent stimulated recall interview. The interview guide included twelve items that focused on the instructors' overall beliefs and perceived practices in prompting students' CT in writing classes. Students wrote Essay 1 at the beginning of learning the Communicative English Language Skills II course, and they wrote Essay 2 at the completion of the course. They also filled out a 38-item SPPCTW questionnaire after completing taking the course. Document analysis was conducted to examine the quality of the writing activities that the instructors assigned during the observed writing sessions. The data analysis involved qualitative (open, axial, and selective coding) and quantitative (i.e., descriptive and inferential statistics) methods.

According to the findings, the instructors described CT as the ability to express ideas convincingly and logically. They also considered it as a controlling mechanism that determines the manipulation of the appropriate form of the language when writing. They, however, were unable to interrelate CT elements with writing skills, though they mentioned varied CT elements (i.e., knowing,

understanding, transferring, concluding, inferring, open-mindedness, problem-solving, analysis, synthesis, evaluation, fairness, and reasoning). On the other hand, the instructors believed that writing serves as a way to display thinking, while CT is a means to write effective paragraphs or essays. They reflected that CT enables students to decide which expression, linguistic structure, or words to choose when writing. Similarly, the correlation analysis showed a strong relationship between students' CT and writing performance (r=0.667). The instructors mentioned their roles such as giving guidance, informing or teaching content knowledge, facilitating, scaffolding, asking questions, introducing CT explicitly, evaluating students' CT, providing feedback, and setting higher expectations. They expected students to be active participants by asking questions/ clarification, sharing views, regulating their learning, and giving and receiving comments.

The result revealed inconsistencies between the participants' professed beliefs and their actual practices in some respects. As a strategy to promote students' CT, the participants advocated the explicit introduction of CT. Reversing this view, they believed that promoting students' CT ability was not their concern. They, instead, illuminated the possibility that students demonstrate CT whenever they write. Besides, in contradiction to his beliefs about the facilitating role of instructors, one of the participants was relatively reserved in facilitating and maintaining interaction with students. Despite the disparities, the students' responses indicated that the instructors provided chances to share opinions, appreciate their attempts, and encourage them to pose questions. The students responded that the instructors assisted them in incorporating relevant and sufficient details, evidence, and examples in their texts.

Moreover, the instructors gave students different writing activities such as narrative, expository, and argumentative writing types. Similarly, according to students' responses, the instructors assigned activities that required students to be reflective, compare and contrast ideas, argue with the support of examples and reasons, and include multiple points of view. Despite this opportunity, the instructors' guidance of students was not up to the level students had to handle the activities. They, in most cases, failed to encourage students to read the passages that accompanied the writing activities. On top of the activities, the instructors believed that self-evaluation, peer feedback, and instructor feedback give chances to students to exercise CT in writing classes. They, nevertheless, do not think that students are competent in offering feedback on their peers' texts. Despite this uncertainty, they instructed students to do peer feedback due to the large class size that hinders

instructor feedback. Although they mentioned the relevance of including CT in the evaluation system, the instructors were uncertain about specific indicators of students' CT in their texts. Regardless of this fact, they attempted to focus on the clarity, organization, and reasoning in students' texts, though not consistently.

The finding, furthermore, showed the instructors' beliefs about students' CT and writing performances. One of the participants contemplated students' inappropriate use of grammar in writing as a sign of their poor CT performance. The other participant did not think that students execute CT when writing since they were not taught about CT and there are no mechanisms to evaluate students' CT ability in writing. On the contrary, he propagated the prevalence of CT whenever students write. The instructors clarified that the lower achievers cannot exercise CT, and they cannot write effectively. Moreover, the participants believed students were incompetent in maintaining coherence, unity, and completeness in a text. They complained about the students' insufficient understanding of cohesive devices, the appropriate vocabulary, mechanics, and linguistic problems. Apart from stating students' inefficiency in CT, the participants were not able to indicate the specific CT element in which students were poor. In consonance with their beliefs, the analysis of students' essay 1 revealed students' poor CT and writing performances. There were no significant differences between students' CT, and writing performances in essays 1 and 2 despite a minimum improvement in their performances in essay 2.

In addition, the finding revealed hindering factors related to the students, the instructors, and other situational factors. The student-related factors included anxiety, fear of making interaction, inability to do self-reflection, inadequate understanding of the rudimentary elements of writing, and absence of learners' self-autonomy. Aggressiveness and reduced teaching commitment were instructor-related problems, while large classroom size, time constraints, and the void of any explicit introduction of CT in the teaching material were considered situational factors.

Based on insights obtained from the pilot study, the researcher learned the following lessons.

1. The researcher discarded one of the themes [i.e., the type of teaching materials/resources] in the observation guide. The use of alternative teaching materials did not seem customary in universities. The instructors were observed using the course module.
2. A modification was made to the interview guide. The participants addressed the issue in item seven- 'How can you relate/ associate CT with writing?' while responding to item six-

'What comes to your mind when you hear the term CT in the context of teaching/learning writing?' Thus, it was necessary to delete item seven and shift the probing questions from item 7 to item 6.

3. Lessons on interviewing skills were gained. During some of the interview sessions, the researcher made wrong interruptions for the sake of posing probing questions amid the participants' explanations. In addition, it was found productive to concisely repeat points that the participants have said before asking them the next question. When this technique was used, the participants became triggered to elaborate and add new ideas and examples that did not appear in their previous explanations.
4. Two items in the questionnaire were revised based on comments received from student participants. Thus, item 3 [He/she initiates me to engage in provocative arguments related to a topic for writing], and item 10 [He/she encourages me to be flexible to handle opposing ideas on a certain topic] were revised.

CHAPTER FOUR: FINDINGS AND DISCUSSION

Introduction

This section includes the findings of the four research questions along with a discussion of important issues. The first research question is presented with the analysis and interpretation of the data generated through the main interview, POI, and SRI. The presentation of the second research question is complemented by data collected using the SPPCTW questionnaire, classroom

observation, and document analysis. Similarly, the third research question is addressed by integrating data that was generated through the main interview, POI, SRI, students' essay writing, and the SPPCTW questionnaire. For the fourth research question, the explanation is presented by aligning data generated through the main interview, POI, SRI, and classroom observation. The chapter, additionally, presents the discussion of relevant points identified from the interpretation of each research question. The discussion involves the implication of the findings and their explanation in light of specific theoretical perspectives. In addition, it comprises the comparison and contrast of the findings with the existing literature.

Findings from the interviews [the main interview, POI, SRI]

This section presents results generated from the interviews. It targeted at addressing the first research question.

4.1. Instructors' Beliefs about Promoting Students' CT skills

4.1.1. Instructors' Beliefs about the Interpretation of CT and its components

The participants conceptualized CT using similar expressions. Most of the definitions portrayed CT as a process. They associated CT with three core constructs: possessing in-depth understanding, being reasonable, and looking at things from different perspectives/ dimensions. For instance, for Biruk, CT is the ability to perform things rationally and systematically by considering the actual situation. Similarly, Natnael, Markos, and Wendu interpreted CT as the ability to see a particular issue in-depth and from different dimensions. Natnael said that "CT means looking at things in depth, in a wider manner, or different angles" [Main interview (M int.)]. More broadly, Elsabet's and Tilahun's interpretations embraced the product of CT. Elsabet linked CT with the capacity to produce efficient and convincing written products that incorporated sufficient reasons instead of mere opinions. She stated that:

> CT in writing refers to the ability of a person to justify his/her assumption and beliefs. Writers should not simply state their opinion. The ultimate goal of a writer is to effectively convey ideas that are convincing to readers. So, they need to support their opinion with justification, rationale, or evidence [M int.].

Similarly, Tilahun described CT as a skill to reach a conclusion through the process of scrutinizing ideas thoroughly and from different perspectives.

Regardless of certain commonalities, the participants' illustrations of CT components involved varied constructs. Except for Markos, who had no clue about any of the elements, the remaining participants considered 'analysis', 'synthesis', and 'evaluation' skills as the aspects of CT. They believed that students have to execute these skills whenever they write on a particular topic. Adding to these components, Tilahun explained that CT embraced 'knowledge', 'recalling', and 'repetition', while Elsabet included 'application'. Emphasizing the disposition aspect of CT, Natnael, and Wendu enlisted the 'inspiration or motivation to think', 'broad mindedness', and 'back-and-forth thinking'.

4.1.2. Instructors' Beliefs about the relevance of CT skills in the Writing Competence of university Students

Along with interpreting CT, the participants explained their beliefs about the intricate relationship between CT and writing skills. Elsabet and Wendu indicated the indispensable role of CT throughout the process of writing. Elsabet, for instance, stated that "writing by itself requires thinking. CT supports students to generate sufficient ideas, organize ideas logically, and evaluate whether their ideas are related to their topic sentence [POI2]. Likewise, describing writing as a systematic process, Wendu underlined the centrality of CT to develop coherent and well-substantiated written texts. In an extended way, Markos and Tilahun stated that writing creates exposure for students to demonstrate CT, while CT in return assists to maintain the quality of written products. In Tilahun's view,

> Writing is a complex activity that seeks CT, and CT will make writing to be meaningful and hence they are interdependent with the other. When we write, we develop our CT. When we critically think, we develop our writing; therefore, they are interdependent and inalienable [M int.].

The participants emphasized that writing, as a principled process, surpasses the activity of simply combining words or sentences. It rather requires writers to analyze, synthesize and evaluate information to address the purpose efficiently.

Given the intimate association between CT and writing skills, the participants highlighted that most of the tasks at the university level demand students' CT ability. According to their view, students at this level, are required to accomplish different writing tasks including laboratory

reports, senior essays, and other project works. Wendu and Natnael elucidated that as a minimum requirement, students have to understand the structures, features, and techniques of a paragraph and an essay development. They agreed on the necessity of students' higher level of writing competence. For instance, Elsabet said:

> Academic writing at this level requires students to incorporate and synthesize diverse sources of knowledge. When incorporating ideas, students are required to demonstrate or show their critical evaluation. So they need to understand the relationship between or among ideas, and they need to determine the relevance or importance of ideas. They need to justify their assumption and beliefs. All in all, at this level, academic writing requires students to react, apply, analyze, and evaluate information that they are going to include in their paragraphs or essays [M int.].

Endorsing this view, Natnael believed that "students in a university have to think critically because they need to see things in a different way not only in a single manner, and their paragraph should not be shallow. They have to incorporate a lot of information into their paragraph and enrich their paragraph with lots of supportive sentences and examples. So, CT is mandatory" [M int.].

The participants further described the relevancies of possessing CT ability. Biruk and Wendu elucidated that equipping students with CT ability enables them to examine the information from different perspectives so that they may have broader, justified, and detailed information. Wendu, in this respect, highlighted that “CT is important for writing as it helps students to generate ideas and come up with different rationales, justifications, and examples to persuade their readers. Unless they think critically, their writing will be useless, or they cannot sufficiently convey what they want to say or believe” [M int.]. Supporting this view, Markos added that students’ CT ability portrays their level of knowledge or understanding of a particular issue. Additionally, Tilahun considered CT as a core element to cultivate students’ deep thinking. He stated that “CT helps to bring new things and then build, modify, change, and then see the result and again think over and modify; therefore, it is a process that helps us to be deep thinkers. Unless students are critical thinkers, they do not realize deep thinking" [M int.]. Moreover, Natnael signified the relevance of CT in enabling students to be responsible for their learning. He explained that “if students are critical thinkers, you do not spend much time. You give a certain context that students are going

to do by themselves because CT helps them to become autonomous or they take the responsibility for their learning" [M int.].

4.1.3. Instructors' Beliefs about the CT Promoting Instructional Mechanisms in Writing Classes

The participants believed that instructors play an indispensable role in promoting students' CT in writing classes. According to Elsabet's perspective, university students should be taught writing in a way that promotes CT since learning at this level demands students to justify their thoughts and assumptions. Corroborating her view, Wendu explained that "students' CT can be promoted as long as the teachers are highly committed to practicing writing in a manner that students will be helped to improve their CT" [M int.]. The participants, therefore, explained the relevance of different instructional strategies that create exposure to students to think critically in writing classes. They, however, reflected contradicting views concerning particular strategies.

4.1.3.1. Interactive Lectures and Facilitating

The instructors mentioned that they promote students' CT by providing input and facilitating learning. In Elsabet's view, knowledge leads to application. Knowing the theoretical aspects of paragraph and essay writing is a foundation for students to write effectively. Markos also added that students exhibit their CT by maintaining unity, coherence, completeness, and variety in a paragraph; as a result, priority goes to enabling students to understand these core issues. Unlike the others, Natnael advocated Krashen's i+1 theory to promote students' CT. He believed that content that is a bit beyond students' current level triggers them to think thoroughly, broaden their understanding of an issue, sketch a plan, and generate information. In this respect, Tilahun illuminated the significance of the Socratic Method during lecturing about paragraph and essay writing. He stated that students think about the content when it is supported by questioning and answering.

Along with giving lectures, the participants assumed their role as a facilitator. According to their view, their role included explaining, questioning, encouraging students to share responsibilities, informing evaluation criteria, following up, showing direction, giving clues/examples, reminding core points, and commenting. Wendu clarified that he asks students questions regarding the given writing activity to stimulate their CT ability. He said,

> I first make the issue clear for the students and then I provide questions that help them to think critically about the issue I gave them to write. Through doing this, I help them to look at things from different angles or perspectives [M int.].

Natnael and Markos indicated the prevalence of students who neglect their individual roles in a group. Therefore, they encourage students to have a shared responsibility when students do a writing task in groups. Biruk, on the other hand, underlined the importance of close follow-up on how students carry out the given activity and providing the necessary clues or examples to show them directions.

4.1.3.2. Process Approach to Writing and Integrating Skills

In addition to facilitating, the instructors underscored the value of employing a process approach to writing in creating exposure to students to think critically. Elsabet explained that students learn to effectively write on a particular topic since they pass through different stages from idea generation to the final production. In Elsabet's and Natnael's view, students think critically at the pre-writing stage since they have to evaluate and justify the relevance and relationship among ideas in alignment with the topic. Elsabet elucidated that

> I select this approach because it provides opportunities to students to generate ideas, arrange ideas logically, evaluate their ideas critically, then finally it enables them to synthesize ideas. So, I think this approach is very vital for students in promoting their CT skills [SRI1].

Besides the process approach, the participants illuminated the importance of integrating reading and writing skills to promote students' CT. Elsabet and Tilahun denoted that good writers are good readers. According to Tilahun, "When they [students] read something and then attempt to write based on what they read, there is a mental process going on in their mind and this is a sign of CT. They do not directly take the ideas they gained from the reading material and then write as it is. Therefore, all these things enhance their CT power and that is why we say reading and writing are two parallel going skills" [POI2]. The instructors stated that students become familiar with the given topic and write a well-organized paragraph that contains sufficient information when they read a passage before writing. Markos added that students demonstrate CT when they read since they execute the skills of analysis, evaluation, and synthesis. He said, "Students have read a reading

passage about Bilharzia. This enables them to think critically through analyzing, evaluating, and synthesizing information. So, they may have plentiful knowledge when they do the writing activity at the end of chapter two" [SRI2]. Conversely, Elsabet mentioned students' tendency to directly copy ideas from a reading passage when they do a writing activity in light of the information in a reading passage.

4.1.3.3. Collaborative and individual work

The instructors, furthermore, reflected contradicting views concerning the role of collaborative and individual work in promoting students' CT in writing classes. They agreed on the view that "many hands do a work better than a single hand" (Biruk, SRI3). In Biruk's perspective, students commit more errors when they perform writing activities individually than in groups. In support of this belief, Markos clarified that students learn different writing strategies from their friends and thereby execute CT. In this respect, Biruk believed in the prevalence of particular issues that are novel to students from urban or rural areas. Hence, while working in groups, students become familiar with the topics. Additionally, the participants reflected that students exercise deep thinking and include in-depth information in their paragraphs when working in groups. For instance, Elsabet said that different students hold varied insights; therefore, there is a chance that their paragraph has depth and breadth. For Markos, this opportunity triggers students to demonstrate analysis, synthesis, and evaluation skills to handle multiple perspectives. Similarly, Biruk, Natnael, and Tilahun explained that students become motivated and engaged in debate on a particular issue when performing activities together. This instance, in Tilahun's view, enables students to not be afraid of making mistakes.

Contrary to their advocacy of the value of group work to the promotion of students' CT, the participants illuminated the necessity of assigning individual work. Elsabet clarified that "writing is an independent activity and it requires independent thinking" [SRI1]. She believed that students learn from their mistakes and take responsibility for their written work regardless of its quality when they do the activity individually. In Tilahun's and Natnael's perspectives, individual work is ideal for compelling idle students in a group to think critically about their work. Natnael said:

> I think giving individual work would be better because when you are allowing students to do it in a group, few students might manage that task. There might be idle students who are not thinking or participating. They do not provide certain information for that paragraph

> writing task. But if you give an individual task, students need to think critically to develop a certain paragraph. So giving an individual task has a chance for students to think critically [POI3].

Additionally, Biruk and Wendu underlined the relevance of individual tasks to allow students to entertain individual points of view. Wendu denoted that:

> When I give them the chance to discuss in groups, it gives them room to look at things from different perspectives. After they bring out ideas from different thinking members, they will finally come to their own understanding. It is impossible or not mandatory to have a common understanding of a certain issue. Students' individual thinking must also be respected. This can be entertained when they share ideas and bring their individual work. So, this helps them to think in two ways: to think in a group, and again their individual thinking must be respected [POI2].

Biruk and Wendu added that assigning individual tasks helps to detect students' weaknesses and strengths. Therefore, the participants emphasized the relevance of encouraging students to work together at the pre-writing stage and during peer commenting.

4.1.3.4. Explicit Introduction of CT

Unlike the other participants, Natnael mentioned the significance of explicitly introducing CT to students. He explained that once students become aware of CT, they plot a plan whenever they do a task. According to Natnael, “The first thing that we teachers need to do is we need to create a certain awareness about CT. We need to let students know what CT means. If they are familiar with CT, they think about the topic, the idea they have to raise with the topic, and the kind of paragraph they are going to develop […] they think about how they are going to finalize a well-written text. They also need to adapt the skills and they need to use them for their practical writing activities” [M int.]. Natnael argued that we cannot make students good at writing in a short time after introducing them to CT. Students should be allowed to demonstrate CT whenever they want. In this regard, he stated that “students do not be good at writing in a short time. We need to help

them to know what CT is because we are working to produce educated manpower. That educated manpower needs to be holistic. if we help students to know what CT is, and if we ask them to practice CT in their writing, I do believe that after some time they use it by themselves without being pushed" [M int.].

4.1.4. Instructors' Beliefs about the Nature of CT Promoting Writing Activities

According to the instructors' beliefs, the nature of writing topics determines students' exposure to demonstrate CT. They believed that students should be asked to write on a topic that is familiar to them. Elsabet explained that:

> I think when the topic is familiar, it gives them a chance to think critically because the first thing in writing is idea generation. If they know the topic, it will be easy for them to generate as many ideas as possible. If the topic is familiar, it enables them to think critically because they have to support their position using convincing arguments [SRI3].

Endorsing this explanation, Biruk, Natnael, and Wendu stated that students' CT ability is bounded by their familiarity with the topic of the writing activity. As the topic is familiar to the students, they tap into their schema and decide on the relevance of specific information to the central idea. Thus, the instructors believed that topics should be simple, relevant, and linked to students' language performance and their immediate surroundings. Adding to their advocacy of topic familiarity, Natnael and Biruk expounded on the significance of challenging topics to test students' CT ability. Natnael stated that "I believe challenging topics may trigger them to think critically. If the topic is a kind of a bit challenging, students need to think about what that topic is, what points need to be included, and what steps need to be followed to produce an acceptable or readable paragraph by the others. If the topic is very easy, and simple, they may not need to think because they are familiar and they know what they are going to do" [SRI2]. He further clarified the necessity of accompanying the unfamiliar topics with 'how' and 'why' questions to scrutinize students' understanding of the issue and instigate their thinking.

Moreover, the instructors mentioned several CT-promoting writing activities. Biruk and Tilahun clarified the existence of CT in each writing activity. In Biruk's view "As long as there is information, there could be CT. But the degree or the level differs" [POI1]. Nonetheless, they

offered prominence to argumentative writing activity compared to the other activities. Wendu elucidated that:

> Unless students provide kinds of logical ideas, supported with examples, it is impossible to convince their readers. So, they are expected to come up with various justifications. So, in the process of generating all these justifications to make their readers agree with their point of view, they will have a chance to think critically [POI3].

He also added that students may have a broad understanding of an issue in argumentative writing since they have to recognize the opposite side. Similarly, as Elsabet, Natnael, and Tilahun indicated, argumentative writing requires more clarification, reasoning, and evidence.

Regardless of the better acceptance of argumentative writing, the participants did not undermine the value of other writing activities. For instance, Biruk signified the importance of writing activities such as jigsaw tasks, cause-effect, process paragraph writing, comparing and contrasting, summary writing, and jumbled sentences. He believed that writing activities should be assigned to students by considering their level of writing performance. In Biruk's perspective,

> Argumentative needs detailed justifications or evidence so that you cannot equate it with jumbled sentences. For lower achievers, an argumentative topic might be difficult. What is appropriate for them could be, for example, cause-effect, compare-contrast, and process writing [M int.].

Similarly, Markos reflected that students' CT can be promoted by giving activities ascending from simple to complex. For Elsabet, activities such as diary writing, creative writing, paraphrasing, and narrative are ideal to promote students' CT.

There is an agreement among the instructors that topic familiarity and the nature of writing activities do not ultimately determine students' CT and writing abilities. They underscored the necessity of constant practice. As Natnael said, 'practice makes perfect' [POI3]. According to Tilahun's opinion, "I am sure they will come up with CT through constant exercise because they commit a mistake, see their mistake, try to correct their mistake, and then they will write again. They make another mistake, and through this process, CT will come into their mind" [POI1]. In this respect, Wendu reflected that he gives home take-writing activities for students to have adequate time to think critically and write effective paragraphs.

4.1.5. Instructors' Beliefs about CT promoting Feedback Provision

The instructors underlined the importance of instructor feedback, peer feedback, and self-reflection to the improvement of students' CT and writing skills. Tilahun considered errors as part of a lesson, and he believed that students improve their skills when they make errors. According to his view, "good students will make errors and learn from their errors" [POI1]. Biruk clarified the students' preference for instructor feedback and its effect on error correction. He said, "Instructor feedback can be good for the students to be 100% sure. They sometimes rely on instructors more than their peers […] when they are given this kind of feedback, they are happy, and they will not repeat that error" [M int.]. Likewise, in Tilahun's view, instructor feedback enables students to see things from different dimensions. For Natnael, this feedback strategy is a means to identify students' gaps and thereby prepare remedial inputs.

The participants, however, reflected contradicting perspectives concerning peer feedback. In Elsabet's opinion, peer feedback stimulates students' CT since feedback provision seeks evaluation which is one of the principal aspects of CT. Supporting this view, Natnael stated that students are compelled to consider the author's or writer's impression instead of a superficial focus on the layout of the written text while evaluating others' work. Therefore, they are predisposed to think critically. He denoted that students recall their previous knowledge while they think about what points should have been considered and what errors have been made. Natnael mentioned an example from one of the peer feedbacks in his class

> I do believe the comments that the students have given have a clue for their CT. Some of the comments say 'You did not organize ideas logically', and 'There is idea duplication'. These comments show students can find out weaknesses [SRI2].

Therefore, as Wendu and Elsabet said, different students have varied insights that benefit both parties during the peer feedback. According to Tilahun's view, "instead of getting correction from me as a teacher, the correction given by their peers will motivate them to do something good and to study better because they compare themselves with their friends" [M int.]. On the contrary, the instructors doubt the students' ability to provide peer feedback. Mentioning students' poor writing performance, the participants argued that most of the students are at the same level, so they cannot identify weaknesses in their peer's written papers. They are instead dependent on the instructor's comments. Natnael explained that some students recklessly wait for the kind of comment their

friends would provide, while the others' comments, as Elsabet indicated, focused on the punctuation and grammar aspects. Therefore, Tilahun concluded that peer feedback is the result of 'being a good writer' [M int.].

Moreover, the instructors elucidated self-reflection as the strategy to demonstrate CT in writing classes. In Biruk's view, self-reflection motivates students and enables them to recall relevant points. Similarly, Natnael said that this strategy contributes to students' CT since they become aware of the error they made, and how they made it and think about how to avoid such errors. Elsabet believed "self-reflection is very important because it will make our students independent. Instead of telling them their mistakes, telling them to self-edit their pieces of writing and identifying their weaknesses and strengths is very essential […] self-editing will improve their CT skill because when they re-read their paragraph, they will identify their problems" [SRI3]. On the contrary, she reserved self-reflection for students possessing high writing competence and can easily detect their weaknesses.

Apart from these strategies of feedback provision, the main focus lies on the instructors' criteria for feedback provision. Elsabet elaborated that she focused on the content of students' paragraphs at the drafting stage. She said, "Students, at the drafting stage, should have to focus on the content. If your focus is on grammar, vocabulary, and mechanics, it may discourage them" [SRI 1]. According to the participants' explanation, their criteria involve sentence structure, grammar, mechanics, vocabulary, unity, coherence, completeness, variety, reasoning, and indentation. In Wendu's view,

> Unless students critically think when they arrange the ideas in chronological order, the paragraph may not be good. So, when they think to write, they are supposed to think critically about what they should write as a topic sentence, how they should organize the details, and conclude the paragraph. So, all these processes help them to think critically [POI2].

The instructors considered written works that fulfilled the aforementioned criteria as evidence of students' CT ability and thereby better writing skills.

Findings from Students' Questionnaire, Classroom Observation and Document Analysis

Students' responses to a questionnaire (SPPCTW), the observation results and document analysis served to address the second research question.

4.2. Instructors' Practices in Promoting Students' CT Skills

Students' responses to a questionnaire (SPPCTW), the observation results and document analysis served to explain the instructors' practices in promoting students' CT in writing classes. The results are presented in four themes: classroom interaction, instructional mechanism, nature of writing activities, and system of feedback provision.

4.2.1. Classroom Interaction (CI)

According to students' responses, the instructors implemented classroom interaction at a medium level (*M*=3.32, *SD*=0.59), as shown in Table 6. Nonetheless, the result of specific items indicated variation among the instructors' practices despite certain similarities. For example, the instructors' provision of chances for students to share their opinions (item 1) was among the highly implemented practices by all the instructors. As the finding indicated, Natnael, Markos, and Biruk more frequently allowed students to perform writing activities collaboratively (item 7). Similarly, at a high-frequency level, Natnael, Wendu, Biruk, and Elsabet initiated classroom discussion on a topic for writing (item 8). Biruk, among the others, repeatedly encouraged students to make arguments (item 3), challenge other students' points of view (item 6), and handle opposing ideas (item 10). Appreciating students' responses (item 11) was the other highly implemented practice by Natnael, Tilahun, and Elsabet.

Table 6. *Descriptive Statistics- CI*

Items	**Instructors**											
	Tilahun		**Natnael**		**Wendu**		**Markos**		**Biruk**		**Elsabet**	
	M	***SD***	***M***	***SD***	***M***	***SD***	***M***	***SD***	***M***	***SD***	***M***	***SD***
Item 1	3.78	1.07	3.60	0.74	3.57	0.85	3.66	1.24	3.62	0.97	3.57	1.22
Item 2	3.43	1.25	3.39	0.88	3.21	0.47	3.55	1.44	3.44	0.90	3.20	1.29
Item 3	3.23	1.30	3.28	0.83	3.36	0.78	3.19	1.21	3.72	0.99	3.00	1.22

Item 4	2.84	1.28	2.93	0.99	2.78	0.81	3.02	1.31	3.13	1.21	2.97	1.34
Item 5	3.00	1.28	3.43	0.83	3.47	0.89	3.00	1.30	3.24	1.12	3.42	1.06
Item 6	2.93	1.30	3.45	0.93	3.26	0.72	3.08	1.18	3.68	1.13	3.48	1.29
Item 7	3.39	1.20	3.56	0.95	3.21	0.99	3.63	1.22	3.55	1.27	3.36	1.34
Item 8	3.41	1.08	3.50	0.80	3.57	0.75	3.33	1.21	3.65	1.11	3.79	1.18
Item 9	3.36	1.14	3.06	0.95	3.34	1.12	2.91	1.18	3.27	0.92	2.91	1.25
Item 10	2.97	1.08	2.97	0.88	3.10	0.95	3.13	1.29	3.51	1.12	2.81	1.34
Item 11	3.76	1.07	3.54	0.95	3.42	0.79	3.47	1.20	3.48	1.15	3.69	1.26

CI- M=3.32, SD=0.59

There was no practice implemented at the lower level, though the results of certain practices were comparatively lower. For example, Tilahun, Natnael, and Wendu less likely allowed students to challenge their perspectives (item 4). Likewise, Markos' encouragement of students to validate their statements (item 9) was relatively lower, while Elsabet encouraged students to handle opposing ideas (item 10) at a comparatively lower frequency.

As the observation result indicated, there were student-student and instructor-student interactions (see Table 7). Students were allowed to interact with their peers to generate information, write collaboratively, and ask for clarification. For instance, Natnael, Biruk, and Markos allowed the students to develop a paragraph collaboratively during the three observed sessions. Throughout all the observed sessions, Tilahun, Elsabet, and Wendu instructed students to write paragraphs individually. They, however, allowed students to discuss and outline ideas together.

Table 7. *Observation Result-CI*

CI Indicators	**Purpose**	**Implementation Frequency**					
		T	**N**	**W**	**B**	**M**	**E**

Student-student Interaction	generating ideas, entertaining multiple perspectives, producing work together, scrutinizing peer's view	2×	3×	2×	3×	3×	2×
Instructor-student Interaction	stimulating thinking, elevating inquiry, assessing understanding, triggering participation, initiating a recall	3×	3×	3×	3×	3×	3×

***Note**: the abbreviations mean: T- Tilahun, N- Natnael, W- Wendu, B- Biruk, M-Markos, E-Elsabet*

Unlike the other instructors, Wendu and Biruk gave chances to a few students to read their written work to the whole class. For instance, during the second observation session in Wendu's class, a student presented her written work about 'koso', which is one of the herbal medicines in Ethiopia. Her paragraph was as follows:

Local herbs

> Our country Ethiopia is rich by natural resources. From those resources local herbs is one of them. There are many types of plants because Ethiopia have different climate type. We have various climate so we have various types of plants. From those plants many of them are herbal plants. From those plants haregresa, damakese, tenadam, koso, nech bahirzaf, kebericho, endod and so on. Koso is one of our local herbal plants. It is used to treat 'yekoso til'. This disease is caused by being eat a raw meat. When we used this plant, it have its own procedure. When we wants to use it first we collect the leaf of the 'koso' trees then we dry it in the sun then we grind it by 'mukecha' or machine or anything else. After then we dissolve it by water. Now it is ready to drink. We must drink it fastly because it is strong to drink it, but it have bad smell and taste. It is effective but it have its own side effect *[A sample of a student's paragraph- second observation session]*.

The instructors maintained interaction with students by explaining the activities, clarifying confusion, and asking questions. Most of the questions asked by the instructors demand recalling information. There were, however, few questions that stimulate students' thinking and initiate them to a thorough analysis of the issue.

4.2.2. Instructional Mechanism (IM)

Similar to the result of the classroom interaction, the students' report indicated that the instructors employed instructional mechanisms at a medium frequency level (*M*= 3.40, *SD*=0.65), as depicted in Table 8. All the instructors, however, implemented the process approach to writing at a higher frequency (item 12). Similarly, except for Elsabet, the other instructors frequently invigorated students to examine the role of different expressions, words, and ideas during the writing process (item 16). Besides, the participants encouraged students to consider multiple explanations related to a topic for writing (item 19) at a higher frequency, except Tilahun. The finding indicated that Tilahun, Biruk, and Elsabet frequently helped students to be aware of the purpose of their writing (item 15). On the other hand, Natnael, Wendu, and Biruk more frequently assisted students to identify ideas in support of or against a particular point of view (item 17). Unlike the others, Biruk and Elsabet frequently suggested students incorporate justified evidence and examples (item 20). Likewise, students in Tilahun, Natnael, and Wendu's classes, reported that the instructors frequently supported them to clarify ideas in writing (item 22).

Table 8. *Descriptive Statistics- IM*

Items	**Instructors**											
	Tilahun		**Natnael**		**Wendu**		**Markos**		**Biruk**		**Elsabet**	
	M	***SD***	***M***	***SD***	***M***	***SD***	***M***	***SD***	***M***	***SD***	***M***	***SD***
Item 12	3.65	1.17	3.67	0.84	3.60	0.88	3.69	1.39	3.55	1.27	3.75	1.18
Item 13	3.36	1.32	3.26	0.99	3.34	0.70	3.33	1.17	3.24	1.35	3.02	1.21
Item 14	3.04	1.53	3.28	1.06	3.39	0.82	3.05	1.73	3.20	1.31	3.04	1.42
Item 15	3.56	1.25	3.32	0.81	3.31	0.98	3.22	1.22	3.68	1.07	3.67	1.24
Item 16	3.67	1.17	3.60	1.02	3.71	0.92	3.69	1.21	3.51	1.18	3.36	1.16
Item 17	3.21	1.19	3.52	0.88	3.57	1.10	3.27	1.34	3.65	1.11	3.46	1.32
Item 18	3.10	1.01	3.30	1.02	3.15	0.94	3.25	1.07	3.34	1.14	3.26	1.27
Item 19	3.32	0.84	3.65	0.97	3.65	0.87	3.50	1.13	3.58	1.23	3.73	1.18

Item 20	3.13	1.29	3.36	0.97	3.44	1.08	3.36	1.09	3.62	1.11	3.75	1.09
Item 21	3.28	1.18	3.63	1.04	3.36	0.94	3.30	1.19	3.44	1.12	3.87	1.12
Item 22	3.58	1.32	3.52	1.06	3.50	1.08	3.38	1.07	3.48	1.27	3.63	1.20
Item 23	3.06	0.99	3.21	1.19	3.15	0.85	3.27	1.05	3.20	1.23	3.36	1.36
Item 24	2.97	0.93	3.17	0.92	3.28	1.11	3.30	1.45	3.27	1.16	3.28	1.35

IM- M=3.40, SD=0.65

As shown in Table 8, there was no item categorized in the lower range, though certain practices were implemented at a comparatively lower level. In this regard, Tilahun's and Natnael's attempt to give students examples of how to logically develop ideas in writing was relatively low (item 24). Besides, Markos' encouragement of students to not worry about mechanics, vocabulary, and grammar until they have made their main points (item 14) was relatively low. The result indicated that Elsabet less likely presented sample texts to let students analyze and evaluate ideas (item 13).

According to the observation result, five instructional mechanisms were prevalent: input provision, process approach, passage analysis, extra activity, and facilitating (see Table 9). All the participants gave lectures concerning paragraph and essay writing. Nonetheless, during the first and the second observation sessions, Tilahun and Markos spent much time lecturing. Students had limited time to accomplish the assigned writing activity. Following the input session, the participants assigned writing activities and encouraged students to employ the process approach. They allocated specific time for students to brainstorm ideas, draft, and peer or instructor feedback throughout the observed sessions, except for Tilahun and Markos. The participants were, nonetheless, reluctant in encouraging students to continue writing after receiving comments on the drafts. For instance, Elsabet and Biruk informed students to complete and bring the final paper that considered the comments in the subsequent class. Yet, there were a few students who could complete the final paper before the class ended.

Table 9. *Observation Result-IM*

IM indicators	**Purpose**	**Implementation Frequency**

		T	N	W	B	M	E
Implementing process approach	thinking thoroughly, well-developed content, analyzing, evaluating, and synthesizing ideas	once	3×	3×	3×	2×	3×
Providing input	creating a framework, refining understanding, providing direction	3×	3×	3×	3×	3×	3×
Analyzing a reading passage	identifying key ideas, recognizing the gist, drawing a conclusion	-	-	once	-	-	-
Assigning extra activity	Paragraph writing outside of class	-	-	once	-	-	-
Facilitating	explaining issues, suggesting alternative ideas, guiding, providing examples, reinforcing individual responsibility	once	3×	3×	3×	3×	3×

Additionally, except Wendu, the other participants abstained from assigning a separate time for students to read the passages that accompanied the writing activities (see Table 9). Wendu encouraged students to read a passage before doing the writing activity only in one of the observed sessions. The participants instead attempted to compensate for this gap by posing questions that triggered students to recall the information they read in the passages during the reading class. Moreover, they were eagerly facilitating the lessons by explaining the activities, motivating students, asking questions, suggesting terms, and closely following up on how students do the writing activities. For example, during the second and the third observed sessions, Biruk suggested students some cohesive devices that students might use when doing the writing activities. These included 'on the other hand', 'but', 'nevertheless', 'consequently', and 'as a result' [*second-day observation*]. Regardless of the relevance of his persistent follow-up, Markos frequently made unnecessary interruptions while the students were actively doing the given activities. On the contrary, Tilahun had a minimum follow-up.

4.2.3. Nature of Writing Activities (NWA)

According to the students' report, the instructors implemented different writing activities at a medium frequency (*M*=3.22, *SD*=0.62), as depicted in Table 10.

Table 10. *Descriptive Statistics- NWA*

Items	**Instructors**											
	Tilahun		**Natnael**		**Wendu**		**Markos**		**Biruk**		**Elsabet**	
	M	***SD***	***M***	***SD***	***M***	***SD***	***M***	***SD***	***M***	***SD***	***M***	***SD***
Item 25	3.23	1.36	3.23	0.89	3.28	1.13	2.77	1.58	3.24	1.12	3.24	1.18
Item 26	3.21	0.91	2.97	0.93	3.21	0.96	3.44	1.02	3.13	1.15	3.46	1.11
Item 27	3.32	1.09	2.91	1.07	2.84	0.85	3.30	1.14	3.44	1.02	3.20	1.17
Item 28	3.26	1.18	3.06	0.74	3.31	0.73	3.38	0.96	3.31	1.07	3.22	1.12
Item 29	3.30	1.26	3.26	0.85	3.13	0.81	3.41	1.07	3.48	1.02	3.44	1.32
Item 30	3.34	1.01	3.10	0.99	3.34	0.93	3.33	1.24	3.10	1.11	3.48	1.35
Item 31	3.36	1.19	3.32	0.84	3.23	1.05	3.00	1.19	3.20	1.29	3.34	1.01
Item 32	3.19	1.22	2.84	0.69	3.10	0.98	3.02	1.42	3.03	1.11	3.28	1.20

NWA- M=3.22, SD=0.62

The instructors gave students varied writing activities related to note-taking and summary writing, reflective writing, compare-contrast, supporting and contesting a point of view, the inclusion of multiple points of view, examples and evidence, cause-solution, and logical arrangement. As the mean value indicated (see Table 10), all the activities were implemented at medium frequency. Nonetheless, activities related to note-taking and summary writing (item 25), compare-contrast (item 27), and logical arrangement of ideas (item 32) were implemented at a relatively lower frequency by Markos, Wendu, and Natnael respectively.

In the same line, the observation result indicated that the participants used varied writing activities (see Table 11). Most of the writing activities were taken from the Communicative English Language Skills II Course module. Tilahun gave three writing activities during the observed sessions. Students wrote concluding, and cause-solution paragraphs as well as an informative essay. They were not explicitly notified to demonstrate the skills of analysis, synthesis, and evaluation, though they were required to employ the skills to accomplish the activity efficiently. The problem solution paragraph was about global warming which is found in unit four. Conceptual terms that indicate the causes and solutions of global warming were suggested so that students logically align the concepts to write the paragraph. This guides students to include relevant elaborations, though it might limit their thinking about other causes and solutions. The informative essay was about culture and heritage. Students were allowed to write an essay on one of the three topics: we have to preserve our cultural heritages, cultural heritages have multiple advantages to our country, and our roles in valuing our cultural heritages. Before the students began doing the activity, there was a whole class discussion about culture and heritages by relating to cultural festivals celebrated particularly at Debre Tabor city. All the activities were accompanied by reading passages.

Table 11. *Observation Result-NWA*

NWA indicators	**Purpose**	**Implementation Frequency**					
		T	**N**	**W**	**B**	**M**	**E**
Concluding paragraph writing	providing a reasonable closure	once	-	once	-	-	-
Narrative paragraph writing	sharing the experience of solving problems	-	once	-	-	once	once
Process paragraph writing	arranging ideas logically	-	-	-	once	-	-
Argumentative paragraph writing	conveying views convincingly, reasoning out ideas	-	-	once	once	-	-
problem solution paragraph writing	aligning ideas logically	once	once	-	once	once	once

Informative paragraph writing	Presenting reliable information, evaluating and extracting facts	-	once	once	-	once	once
Reflective paragraph writing	Explaining lessons gained from reading a text	-	-	-	-	once	once
Informative essay writing	associating and organizing ideas with evidence, revealing information comprehensibly	once	-	-	-	-	-

In Natnael's class, students were instructed to write narrative, informative, and cause-solution paragraphs (see Table 11). The narrative paragraph requires students to narrate a problem they faced at high school and the solutions they took. Unlike the other activities, the module included specific thinking-stimulating questions. These questions trigger students to outline ideas prior to writing. The informative paragraph was about 'Endod as a pesticide'. Students were required to explain the nature of Endod and its purposes. The instructor selected the topic among two optional topics in the unit. He clarified to students about the nature of Endod, and its benefit before any scientific investigation. The cause solution paragraph about global warming was similar to the activity that Tilahun used. Reading passages complemented the activities so that students might have the chance to analyze, evaluate and extract relevant information.

Similarly, Wendu assigned concluding, informative, and argumentative paragraph writing activities. Similar to Tilahun, students in Wendu's class were instructed to write a concluding paragraph to the passage about 'life skills'. During the second observation session, the students were asked to write about local herbs. Like the narrative paragraph, some brainstorming questions were presented to guide students. The activity demands students to seek information from knowledgeable people about the local herb they selected. The instructor, therefore, ordered students to identify one local herb and conduct an interview with a friend who knows about the herb. Thus, students developed different paragraphs about 'Dama kese', 'tenadam', 'haregresa', 'koso', and 'nech bahir zaf' (see section 4.2.1 for a sample of a student's paragraph). Basically, there was a whole classroom discussion about the types and benefits of different local herbs. The other activity was about an argumentative paragraph on 'foreign investors should not invest in our fertile land'. While explaining the activity, the instructor suggested the students construct their argument from political, economic, and social perspectives. He, however, advised them to focus

on their point of view instead of mentioning the notion of the opposite sides. Except for the argumentative paragraph that was brought by the instructor, the other activities were complemented by reading passages.

Students in Biruk's class wrote paragraphs on process writing, argumentative, and problem-solution. The process paragraph writing that was brought by the instructor was on two optional topics: the digestive system and how to make coffee. Biruk provided students with an example on the topic of the 'human digestive system'. He discussed with the students every process of human digestion before students began writing. This detailed example and explanation on this topic, nonetheless, left students with no additional information. The students were unable to add new ideas as was evident in some of the students' paragraphs that were presented to the whole class. The argumentative paragraph was on one of the alternative topics: 'University students should wear uniforms' and 'Students should be placed at their local universities'. The instructor discussed with the students concerning issues possibly to be included in the paragraph. As Wendu did, Biruk suggested students develop their argument from cultural, economic, and political perspectives. Contrary to Wendu's advice, Biruk instructed the students to briefly state arguments on the opposite side along with their preferred stance. These two writing activities were not supported with reading passages since they were brought by the instructor. In the third observation session, the students wrote a problem-solution paragraph on global warming.

Moreover, students in Markos' and Elsabet's classes were instructed to perform narrative, informative, reflective, and problem-solution paragraphs. The narrative paragraph was about the problems students faced at high school and the solutions they took. The informative paragraph was on 'Endod as a pesticide', while the reflective paragraph focused on 'the lesson you learned from Dr. Aklilu Lema'. The instructors, unlike Wendu and Natnael, allowed the students to write a paragraph on informative or reflective paragraph topics. Using their own words, students were required to provide a detailed explanation and their reflections about the lessons they learned from Dr. Aklilu Lema. They had to read and understand the passage about the 'grassroots attack on Bilharzia' to accomplish this activity, though Markos and Elsabet were not concerned about allocating time to students to read the passage before writing. The instructors instead attempted to discuss with students, particularly about Endod and its purposes as Natnael did. The third activity

was about global warming. As mentioned above, the writing activity demands students to logically associate elaborations based on the given conceptual terms as problems and solutions.

4.2.4. System of Feedback Provision (SFP)

The 'system of feedback provision' by the instructors was at an average level (*M*=3.14, *SD*= 0.67), as displayed in Table 12. Instructor feedback (item 33) was the frequently implemented strategy by Tilanun, Biruk, and Elsabet. Although the mean values indicated medium frequency, instructor feedback was the preferred strategy by Wendu and Markos.

Table 12. *Descriptive Statistics- SFP*

Items	**Instructors**											
	Tilahun		**Natnael**		**Wendu**		**Markos**		**Biruk**		**Elsabet**	
	M	***SD***	***M***	***SD***	***M***	***SD***	***M***	***SD***	***M***	***SD***	***M***	***SD***
Item 33	3.58	1.29	3.34	0.87	3.44	0.76	3.38	1.12	3.58	1.18	3.59	1.22
Item 34	3.13	1.43	3.04	0.91	2.94	0.73	3.13	1.26	3.13	1.05	3.30	1.00
Item 35	3.15	1.19	3.15	0.75	2.92	0.85	3.02	1.02	3.03	1.08	3.44	1.17
Item 36	3.08	1.20	2.73	0.71	2.86	0.99	2.97	1.27	2.89	0.93	2.93	1.16
Item 37	2.86	1.24	3.39	0.82	3.10	1.03	3.30	1.26	3.13	1.05	3.48	1.02
Item 38	2.60	1.21	3.04	0.75	2.86	0.84	3.00	1.14	2.82	1.10	3.28	1.24

SFP- M=3.14, SD=0.67

As depicted in Table 12, peer feedback (item 37) was the second preferred strategy implemented at an average level by the instructors except for Tilahun. For Tilahun, self-reflection (item 35) was the second preferred strategy that was implemented at an average level. According to the students' report, the instructors' criteria that incorporated clarity, relevance, logicalness, accuracy, depth, precision, breadth, and fairness were implemented at a medium level.

According to the observation data, the participants used peer feedback and instructor feedback alternatively, except Tilahun, Wendu, and Markos (see Table 13). For instance, during the three

observed sessions, Natnael commented on students' paragraphs, and he instructed students to do peer commenting. Tilahun and Wendu, however, preferred instructor comments. They commented on some of the students' works since it was impossible to address all the students' writing tasks. In Markos' class, students were responsible to comment on their peer's written work. Although she changed the strategy to instructor feedback during the second and third observation sessions, Elsabet allowed for peer feedback during the first observation session. Elsabet, Biruk, and Natnael advised students to self-edit their work in the light of the given criteria, though the instructors did not assign a separate time. Biruk and Natnael, among the others, encouraged students to hold discussions on the comments with the students who provided the feedback. For example, during the third observation session, Biruk allocated time for students to present their comments on their peers' work to the whole class, and there was a whole class discussion. Every student in the classroom actively engaged in the discussion, and some of the students requested the instructor's confirmation on specific points. This created a chance to students to rethink their work and revise it.

A student-2 [*a representative of group 2*] – when you write a paragraph, you have to use indentation. There is a punctuation problem- you have to capitalize a word after making a full stop. You skipped using a comma when necessary. [*While the student was explaining the comments, the groups who wrote the paragraph began arguing to reason out what they did. For instance, the two groups began arguing on when to use capital letters in the middle of a sentence- especially in the case of using proper nouns*]. The student continued to explain the comment- you mentioned some confusing and unrelated ideas.

Biruk: ok next group.

A Student- 3 [*a representative of group 3*] – it is not an organized paragraph. You have to arrange the idea in a cause-effect Pattern. It seems like an essay, not a paragraph. You did not connect the sentences in one. You have a problem with your use of prepositions. There is a spelling problem [*he also suggested the correct answer*].

[*Excerpt taken from 3rd observation session-Biruk*]

Table 13. *Observation Result- SFP*

SFP indicators	Purpose	Implementation Frequency					
		T	N	W	B	M	E
Instructor feedback	Seeing things from different dimensions, recognizing gaps	3×	3×	3×	2×	-	2×
Peer feedback	Re-evaluating ideas, creating a relaxed situation	-	3×	-	2×	3×	once

The participants informed students of the criteria that incorporated varied points so that they can crosscheck their works and use it during peer feedback. Certain aspects such as grammar and mechanics commonly appear in all the instructors' criteria. Biruk's criteria incorporated several aspects such as clarity, layout, readability, paragraph structure, coherence, unity, idea development, variety, grammar, and mechanics. Elsabet's comments emphasized clarity, depth, unity, completeness, variety, grammar, and mechanics. Specifically during the second and third observation sessions, Wendu focused on clarity, depth, reasoning, grammar, vocabulary, and mechanics. Similarly, Tilahun, Natnael, and Markos gave attention to grammar, vocabulary, mechanics, sentence construction, paragraph structure, and layout. Students, nonetheless, did not strictly adhere to the given criteria during the peer commenting. For instance, during the second observation session in Natnael's class, there were a group of students who commented on the relevance of particular sentences in their peer's paragraph. In general, the focus of most of the students during peer feedback was on grammar and mechanics.

Findings from Interviews, Students' Questionnaire, and Essay Writing

The analyses of data generated through interviews [the main interview, POI, SRI], students' questionnaire and essay writing were made to respond to the third research question.

4.3. Instructors' Beliefs about Students' CT and Writing Performances and Students' Performances

4.3.1. Instructors' Beliefs about Students' CT and Writing Performances

The instructors reflected similar views concerning the students' CT performance. According to Biruk's view, students were not good at CT since their written works lack depth. He said that "they [students] have the idea. They have an understanding of how to write. The problem is they did not

go through the paragraph in detail" [SRI2]. Similarly, Elsabet doubted students' CT ability except for a few students whose written texts incorporated convincing, logically arranged, and relevant ideas. She explained,

> I got three or four students who wrote a good paragraph. I observed that their ideas were convincing, arranged logically, and their ideas were linked to their topic sentence. But the majority of the students were not able to produce even a single meaningful sentence [SRI2].

Instead of elucidating further indicators that show students' inadequate CT performance in writing skills, the instructors contemplated poor writing competence as a sign of poor CT ability. For example, Tilahun clarified that "I do not believe students apply CT when they write because had they been capable of applying CT, they would have become at least good writers at the level of good writing" [M int.]. Endorsing this view, Elsabet elaborated on the impossibility to think students were good at CT in writing given their inability to write meaningful sentences without grammatical and punctuation errors.

Moreover, the instructors stated several indicators that show students' poor writing performance. Problems related to organizing ideas and using correct grammatical and mechanics were mostly mentioned by the participants. For example, Natnael said that

> Few students have a habit of using a capital letter in the middle of their writing. You can see 't' as a capital letter in the middle of a sentence" [SRI1].

Elsabet further elucidated issues related to the clarity of contents and arrangement of ideas. She stated that "I observed grammar problems. Some of their paragraphs were full of fragments. Some of their sentences were not clear, and they [students] did not arrange their ideas logically" [SRI2]. Adding to these problems, Natnael and Markos indicated students' inability to examine the relevance of ideas and maintain the structure of a paragraph: topic sentence, body, and concluding sentence. Wendu also clarified students' failure to avoid superficial ideas and include sufficient details. Sharing Wendu's description, Tilahun explained students' tendency to repeat unnecessary ideas when they write.

Regardless of the aforementioned problems with students' CT and writing performances, the instructors further explained some improvements in students' CT and writing abilities. Elsabet explained students' CT improvement by relating to students' attempts to include convincing ideas

and organize points logically. She said that "as compared to the previous two writing classes, there were improvements related to their CT skills […] students tried to generate as many ideas as possible. Some of their points were convincing and logically organized" [SRI3]. Additionally, Biruk described students' improvement of CT in terms of the students' alteration of their focus from the language aspect to the idea development when writing. Likewise, during the second observation session, Wendu stated the prevalence of a few students who incorporated ample reasons and justifications for the given writing activity. Concerning the improvement in students' writing performance, Natnael said that "there is a kind of enhancement in their [students'] writing skill […] they tried to construct a grammatically correct and meaningful sentence. They also considered the mechanics of writing" [SRI3]. Elsabet, Biruk, and Markos added that students showed progress in developing content adequately, organizing ideas properly, and maintaining sentence clarity.

4.3.2. Students' CT performance in Essay 1 and Essay 2

As depicted in Table 14, the result of students' CT performance in essays 1 and 2 was presented in the light of nine standards: clarity, relevance, logicalness, accuracy, depth, significance, precision, breadth, and fairness. The result indicated that students in the six sections scored average only in a few of the CT standards. Except for students in Markos' (M=2.70) and Elsabet's (M=2.78) classes, students in the other sections scored average in clarity in essay 1. Among the others, students in Natnael's and Biruk's classes scored average results in most of the CT standards in Essay 1. For example, students in Natnael's classes scored average in relevance (M=3.03), accuracy (M=3.03), and significance (M=3.07) in essay 1. A similar result was found about students in Biruk's classes concerning relevance (M=3.19), accuracy (M=3.18), and significance (M=3.09). On the other hand, students in Natnael's class scored average in Fairness (M=3.08), while the students' results in Biruk's class was average in depth (M=3.03), precision (M=3.16) and breadth (M=3.03). In general, students in the six sections scored relatively better results in clarity in essay 1. Nonetheless, breadth was one of the CT criteria that students in Natnael's, Markos', and Wendu's classes scored relatively poor results, while students in Tilahun's, Biruk's, and Elsabet's classes result was poor in logicalness.

Table 14. *Descriptive Statistics of Students' CT Performance in Essays 1 and 2*

		Tilahun		Natnael		Markos		Wendu		Biruk		Elsabet	
CT Standards		***M***	***SD***	***M***	***SD***	***M***	***SD***	***M***	***SD***	***M***	***SD***	***M***	***SD***
Clarity	E_1	3.03	0.67	3.19	0.74	2.70	0.69	3.21	0.54	3.29	0.65	2.78	0.81
	E_2	3.18	0.68	3.27	0.72	2.79	0.75	3.31	0.50	3.40	0.52	3.86	0.87
Relevance	E_1	2.97	0.74	3.03	0.71	2.55	0.71	2.99	0.55	3.19	0.56	2.63	0.84
	E_2	3.04	0.74	3.14	0.78	2.69	0.79	3.09	0.54	3.25	0.54	2.75	0.89
Logicalness	E_1	2.73	0.61	2.89	0.78	2.47	0.74	2.82	0.63	2.96	0.72	2.52	0.91
	E_2	2.77	0.69	3.01	0.82	2.54	0.84	2.89	0.66	3.02	0.64	2.55	0.93
Accuracy	E_1	2.88	0.65	3.03	0.73	2.48	0.73	2.90	0.66	3.18	0.72	2.56	0.91
	E_2	2.94	0.72	3.14	0.80	2.59	0.81	2.97	0.62	3.26	0.68	2.67	0.92
Depth	E_1	2.73	0.62	2.88	0.80	2.50	0.78	2.86	0.65	3.03	0.67	2.54	0.88
	E_2	2.79	0.73	2.96	0.89	2.52	0.82	2.91	0.71	3.09	0.62	2.61	0.90
Significance	E_1	2.87	0.64	3.07	0.73	2.48	0.61	2.80	0.61	3.09	0.69	2.62	0.91
	E_2	2.91	0.69	3.05	0.81	2.56	0.75	2.91	0.68	3.18	0.64	2.62	0.96
Precision	E_1	2.84	0.67	2.85	0.80	2.45	0.68	2.86	0.55	3.16	0.54	2.58	0.95
	E_2	2.90	0.75	2.98	0.86	2.59	0.79	2.99	0.65	3.23	0.61	2.63	0.95
Breadth	E_1	2.79	0.63	2.81	0.78	2.40	0.77	2.73	0.67	3.03	0.58	2.59	0.89
	E_2	2.72	0.74	2.92	0.88	2.45	0.81	2.88	0.72	3.11	0.63	2.60	0.93
Fairness	E_1	2.95	0.68	3.08	0.62	2.48	0.59	2.99	0.57	2.98	0.61	2.67	0.92
	E_2	3.01	0.70	3.04	0.76	2.56	0.72	3.05	0.59	3.13	0.68	2.62	0.96

Moreover, as shown in Table 14, students' scores in essay 2 indicated a minimum improvement, though their results remained poor in most of the CT standards. Except for students in Markos' (M=2.79) class, students in the five sections scored average in clarity in essay 2. Similarly, the students' result in relevance was at the average level in Tilahun's (M=3.04), Natnael's (M=3.14),

Wendu's (M=3.09), and Biruk's (M=3.25) classes. Similar to the result in essay 1, students in Natnael's and Biruk's classes scored average in most of the CT standards in essay 2. Unlike in essay 1, students' result in logicalness in essay 2 was at an average level, particularly in Natnael's (M=3.01) and Biruk's (M=3.02) classes. Likewise, students in these two sections scored average in accuracy (Natnael=3.14, Biruk=3.26), and significance (Natnael=3.05, Biruk=3.18). Nonetheless, depth (M=3.09), precision (M=3.23), and Breadth (M=3.11) were among the CT criteria in which the students in Biruk's classes scored average. On the other hand, students in the four sections scored average in fairness, except for students in Markos' (M=2.56) and Elsabet's (M=2.62) classes. Like the result in essay 1, the students' result in clarity in essay 2 indicated a comparatively better score across the six sections. Among the CT criteria, students' score in logicalness in Elsabet's (M=2.55) class was poor, while the students in the remaining sections scored poorly in breadth.

Additionally, students' cumulative CT performance in Essay 1 and Essay 2 was presented in three ranges: high, average, and low. As indicated in Table 15, students in Natnael's (17.4%) classes scored high in Essay 1 and Essay 2 than students in the other sections. Most of the students in Biruk's (79.3%) class were in the average range in essay 1, while most students in Wendu's (84.2%) class were in the average range in essay 2.

Table 15. *Students' general CT performance in Essays 1 and 2*

	Range											
	CT in Essay 1						**CT in Essay 2**					
Instructors	**High [75-100]**		**Average [50-75]**		**Low [<50]**		**High [75-100]**		**Average [50-75]**		**Low [<50]**	
	F	***%***	***F***	***%***	***F***	***%***	***F***	***%***	***F***	***%***	***F***	***%***
Tilahun	3	6.5	31	67.4	12	26.1	4	8.7	32	69.6	10	21.8
Natnael	8	17.4	26	56.5	12	26.1	8	17.4	25	54.3	13	28.3
Markos	1	2.8	16	44.4	19	52.8	3	8.3	15	41.7	18	50
Wendu	2	5.3	29	76.3	7	18.4	2	5.3	32	84.2	4	10.5

Biruk	3	10.3	23	79.3	3	10.3	3	10.3	24	82.8	2	6.9
Elsabet	5	10.2	25	51	19	38.8	5	10.2	24	48.9	20	40.8

Unlike the other sections, a few students in Markos' (2.8%) class were in the high range, and a large number of students (52.8%) were in the low range in Essay 1. Similarly, only 5.3% of the students in this section were in high level, while 50% of them were in low range in essay 2.

Further statistical analysis was computed to examine if there appears a statistically significant difference between students' CT performance in essay 1 and essay 2 (see Table 16).

Table 16. *Paired samples t-test of students' CT performance in Essay 1 and Essay 2*

Instructors	***T***	***Df***	***Sig. (2-tailed)***
Tilahun	-1.927	45	0.06
Natnael	-1.489	45	0.14
Markos	-1.321	35	0.19
Wendu	-1.677	37	0.10
Biruk	-1.556	28	0.13
Elsabet	-1.796	48	0.07

The result of the paired samples t-test in Table 16 indicated the absence of a statistically significant difference between students' CT performance in essay 1 and essay 2. For instance, a significant statistical difference was not found in the CT performance of students in Tilahun's section since t(45)=-1. 927, p= 0.06 (p>0.05). Similarly, there was no statistical difference in the CT performance of students in Markos' (t(35)=-1.321), p=0.19) and Biruk's (t(28)=-1.556, p=0.13) classes.

4.3.3. Students' Writing Performance in Essay 1 and Essay 2

Students writing performance in essays 1 and 2 was examined in light of five strands such as content, organization, vocabulary, language, and mechanics. As depicted in Table 17, students in the six sections scored below average in essay 1, though they scored relatively better results in the

different criteria. For example, students in Tilahun's (M=2.74) and Markos' (M=2.68) classes were relatively better in language, while students' result in 'organization' was relatively better in Biruk's (M=2.90) and Elsabet's (M=2.59) classes. Contrarily, students in the five sections scored poorly in mechanics, while 'organization' was the difficult writing standard for students in Tilahun's (M=2.55) class. In general, students in Biruk's class scored relatively better results in all the writing elements in Essay 1 as compared to students in the remaining five sections.

Table 17. *Descriptive Statistics of Students' writing performance in Essays 1 and 2*

Writing Standards		**Tilahun**		**Natnael**		**Markos**		**Wendu**		**Biruk**		**Elsabet**	
		M	***SD***	***M***	***SD***	***M***	***SD***	***M***	***SD***	***M***	***SD***	***M***	***SD***
Content	E_1	2.64	0.71	2.75	0.68	2.50	0.43	2.63	0.59	2.84	0.60	2.55	0.76
	E_2	2.92	0.89	3.05	0.87	2.81	0.74	2.84	0.66	3.08	0.70	2.70	0.77
organization	E_1	2.55	0.70	2.73	0.87	2.59	0.68	2.65	0.63	2.90	0.67	2.59	0.79
	E_2	2.82	0.98	2.88	0.98	2.69	0.82	2.75	0.70	3.00	0.80	2.66	0.88
Vocabulary	E_1	2.71	0.69	2.67	0.72	2.59	0.61	2.68	0.62	2.86	0.62	2.50	0.77
	E_2	2.77	0.90	2.90	1.01	2.63	0.87	2.67	0.73	3.01	0.79	2.58	0.70
Language	E_1	2.74	0.56	2.71	0.93	2.68	0.72	2.57	0.63	2.79	0.55	2.44	0.68
	E_2	2.79	0.95	2.89	0.98	2.68	0.84	2.67	0.73	2.94	0.85	2.54	0.89
Mechanics	E_1	2.66	0.65	2.49	0.77	2.50	0.63	2.36	0.62	2.68	0.62	2.38	0.63
	E_2	2.66	0.98	2.67	1.05	2.44	0.83	2.46	0.65	2.81	0.74	2.38	0.73

Furthermore, students' writing performance in essay 2 showed a little improvement as presented in Table 17. For instance, students in Natnael's (M=3.05) and Biruk's (M=3.08) classes scored average in content. Although the mean value indicated poor, students in the remaining sections scored relatively better results in content. Unlike the other sections, students' results in Biruk's class were in the average range in 'organization' (M=3.00) and vocabulary (M=3.01). Moreover, students across the six sections scored comparatively low results in mechanics compared to the other writing criteria.

As indicated in Table 18, students' cumulative result in writing performance was presented in three categories: high, average, and low.

Table 18. *Students' general writing performance in Essay 1 and Essay 2*

	Range											
	Writing in Essay 1						**Writing in Essay 2**					
Instructors	**High [75-100]**		**Average [50-75]**		**Low [<50]**		**High [75-100]**		**Average [50-75]**		**Low [<50]**	
	F	***%***	***F***	***%***	***F***	***%***	***F***	***%***	***F***	***%***	***F***	***%***
Tilahun	1	2.2	25	54.3	20	43.5	8	17.4	16	34.8	22	47.8
Natnael	5	10.9	20	43.5	21	45.7	10	21.7	18	39.1	18	39.1
Markos	1	2.8	19	52.8	16	44.4	3	8.3	15	41.7	18	50
Wendu	-	0	22	57.9	16	42.1	3	7.9	18	47.4	17	44.7
Biruk	1	3.4	21	72.4	7	24.1	2	6.9	24	82.8	3	10.3
Elsabet	4	8.2	19	38.8	26	53.1	2	4.1	28	57.1	19	38.8

There were about 10.9% of students from Natnael's class in the high range in essay 1, while none of the students' scores reached this level from Wendu's class (see Table 18). A greater number of students (26 or 53.1%) in Elsabet's class were at the low level in Essay 1. However, the number of students in the high range increased from 1 (2.2%) to 8 (17.4%) in essay 2 in Tilahun's class, though the number of students in this range was greater in Natnael's class (10 or 21.7%). Contrarily, the number of students in the low range was greater in Markos' class (18 or 50%). Among all the sections, there was a minimum number of students (3 or 10.3%) in the low range, particularly from Biruk's class.

Additionally, a paired samples t-test was computed to check for significant differences between students' writing performance in Essay 1 and Essay 2. The result in Table 19 indicated the absence of any significant difference in students' writing performance in essays 1 and 2.

Table 19. *Paired Samples t-test of students' writing performances in Essay 1 and Essay 2*

Instructors	***T***	***Df***	***Sig. (2-tailed)***
Tilahun	-1.860	45	0.06
Natnael	-1.653	45	0.11
Markos	-1.526	35	0.13
Wendu	-1.449	37	0.15
Biruk	-1.954	28	0.06
Elsabet	-1.870	48	0.07

As portrayed in Table 19, there was no statistical difference in the writing performance of students in Natnael's section since t(45)= -1.653, p=0.11 (p>0.05). Likewise, a statistically significant result was not found in Wendu's (t(37)= -1.449, p=0.15), Biruk's (t(28)= -1.954, p=0.06) and Elsabet's (t(48)= -1.870, p=0.07) sections.

4.4. The Association between Instructors' Practices in Promoting Students' CT as Perceived by Students and Students' CT and Writing Performances

Different statistical tests were computed to examine the association among three variables: students' CT performance, students' writing performance, and instructors' practices in promoting students' CT as perceived by students. As displayed in Table 20, the Students' Perceptions of the Promotion of CT in Writing (SPPCTW) scale included four sub-categories: Classroom Interaction (CI), Instructional Mechanisms (IM), Nature of Writing Activities (NWA), and System of Feedback Provision (SFP). The General Critical Thinking Promotion (GCTP) depicted the overall result of these four sub-categories. Spearman rho rank correlation coefficient (r_s) was computed to examine the relationship between students' CT and writing performances and SPPCTW (see section 3.6). Whereas, Pearson correlation coefficient (r) was employed to check the relationship between students' CT performance and writing performance. Table 20, thus, depicted the results computed in both statistical tests.

Table 20. *The correlation result*

Students' Performance	**SPPCTW Scale**

	CI	IM	NWA	SFP	GCTP	CT performance
CT performance	0.74**	0.74**	0.65**	0.62**	0.82**	1.00
Writing Performance	0.75**	0.76**	0.66**	0.66**	0.85**	0.92**

**. *Correlation is significant at the 0.01 level (2-tailed).*

As the correlation result in Table 20 showed, there was a strong positive relationship among the variables. There was a strong positive relationship between students' CT performance and the four sub-categories: CI (r_s=0.74), IM (r_s=0.74), NWA (r_s=0.65), and SFP (r_s=0.62) in the light of Muijs' (2004) effect size that indicates a strong relationship between variables in >+/-0.5-<+/-0.8. Similarly, a strong positive correlation was found between students' writing performance and CI (r_s=0.75), IM (r_s=0.76), NWA (r_s=0.66), and SFP (r_s=0.66). In general, there was a very strong relationship between the GCTP and CT performance (r_s=0.82) and writing performance (r_s=0.85) since r_s>+/-0.8 according to Muijs' (2004) effect size. This showed that students' CT and writing performances increase as the frequency of CT-promoting practices increase. Similarly, there was a very strong positive association between students' CT performance and writing performance (r=0.92).

Furthermore, a regression analysis was computed to examine how the subscales of SPPCTW predict students' CT and writing performances. More specifically, the hypothesis that the independent variables (CI, IM, NWA, and SFP) predict the dependent variables (students' CT, and writing performances) were examined. As presented in Table 21, the independent variables significantly predicted students' CT performance (SCTP), F(4,239) = 98.674, p<000. The R^2 = .623 revealed that the model explains 62.3% of the variance in students' CT performance. This depicted a strong size effect of the model in creating a variation in the students' CT performance (Muijs, 2004).

Table 21. *The multiple regression results of SPPCTW and SCTP*

Hypotheses	B	Beta (β)	T	p-value	Results
H1 [CI→SCTP]	8.148	.314	5.161	.000*	Supported

H2 [IM→SCTP]	6.625	.285	4.470	.000*	Supported
H3 [NWA→SCTP]	4.339	.176	3.086	.002*	Supported
H4 [SFP→SCTP]	3.274	.145	2.631	.009*	Supported
R^2	.623				
F(4,239)	98.674				

**p<0.05. SCTP: Students' Critical Thinking Performance*

Moreover, the impact of each of the predictors on the SCTP showed statistically significant and positive impacts on SCTP with CI (t=5.161, p=.000, β=.314), IM (t=4.470, p=.000, β=.285), NWA (t=3.086, p=.002, β=.176), and SFP (t=2.631, p=.009, β= .145). Additionally, as the positive slope for CI (B=8.148) and IM (B=6.625) indicated, one point increase in each CI and IM resulted in an increment of SCTP of about 8.148 and 6.625, respectively. Similarly, one point increase in each NWA (B=4.339) and SFP (B=3.274) caused an increase of SCTP of about 4.339 and 3.274, respectively (see Table 21).

Similarly, as illustrated in Table 22, the SPPCTW sub-categories significantly predicted students' writing performance (SWP), F(4,239) = 113.258, p<000. According to the R^2 =.655, the model explains 65.5% of the variance in students' writing performance. This indicated a strong size effect of the model in creating a variation in the SWP.

Table 22. *The multiple regression results of SPPCTW and SWP*

Hypotheses	**B**	**Beta (β)**	**T**	**p-value**	**Results**
H1 [CI→SWP]	7.544	.269	4.615	.000	Supported
H2 [IM→SWP]	8.637	.344	5.627	.000	Supported
H3 [NWA→SWP]	3.456	.129	2.373	.018	Supported
H4 [SFP→SWP]	4.915	.201	3.814	.000	Supported
R^2	.655				

F(4,239)	113.258	

**p<0.05. SWP: Students' Writing Performance*

The result further indicated a positive and statistically significant impacts of each of the SPPCTW sub-categories on SWP with CI (t=4.615, p=.000, β=.269), IM (t=5.627, p=.000, β=.344), NWA (t=2.373, p=.018, β=.129), and SFP (t=3.814, p=.000, β=.201). The positive slope for CI (B=7.544) and IM (B=8.637) showed that one point increase in each CI and IM caused an increase of SWP of about 7.544 and 8.637, respectively. Likewise, an increase of SWP of about 3.456 and 4.915 aligned with a one-point increment in NWA (B=3.456) and SFP (B=4.915), as described in Table 22.

Findings from Interviews and Classroom Observation

This section presents data generated through interviews [the main interview, POI, SRI] and classroom observation. It aimed at responding to the fourth research question.

4.5. Factors Influencing Instructors' Practices

The instructors explained several factors that interfered with the practice of promoting students' CT in writing classes. These factors were mainly student and instructor related as well as situational factors.

4.5.1. Student-related factors

The instructors clarified various student-related factors. Natnael and Tilahun discussed students' negative perceptions of writing, change-resistant behavior, and abstinence from devoting adequate time to CT. According to Natnael's view, it is challenging to insist on the use of CT among students who held negative perceptions towards writing and considered writing as a burden or a difficult task. Tilahun, on the other hand, believed that students are reserved for new changes. He explained students' resistance to anything they felt new despite its contribution to extending their learning. Agreeing with this view, Natnael said that "students might not voluntarily perform activities that are regularly given to them to enhance their CT" [M int.]. Students' reluctance to invest adequate time to think critically while doing the given writing activity was mentioned by Tilahun. He stated that:

> Writing is time taking. I expected them [students] to take much time to critically think, see, revise, write, rewrite, and refine. But students these times are careless. They are not duty minded, and they do not want to spend much of their time learning. Instead, they simply rush to get good marks and graduate [SRI1].

In addition, students' carelessness to bring the necessary materials and the prevalence of passive students were the other obstacles. Because of students' lack of readiness and their negligence to bring the required materials (i.e., notebooks, the module) when attending classes, Natnael was compelled to change his plan. Before entering class, the instructor had planned to allow students to brainstorm ideas in groups and then develop a paragraph individually. He instead changed this plan and instructed the students to do the writing activity in groups since there were students who were not ready to do the writing activity and did not bring notebooks. Adding to this, Natnael, Biruk, and Wendu expounded on the prevalence of passive students. These students, according to the instructors' view, throw their responsibilities over the others' shoulders and sit idly in group work.

Moreover, as discussed in section 4.3.1, the instructors considered students' poor writing competence as the main hindrance to not focusing on CT. In this respect, Wendu stated students attempt to blindly copy ideas from a reading text while they were instructed to write a concluding paragraph for a passage. He said, "The problem was they simply read the passage, and if they believe it is a key point, they blindly copy it and include it in the concluding paragraph that they were told to write" [SRI1]. Biruk, on the other hand, described students' limited ability to recognize the opposite side when doing an argumentative writing activity. He said:

> Most of the students were not able to write an argumentative paragraph appropriately because they only put one piece of information or one side. They did not see the opposite views of others [SRI2].

Elsabet, Natnael, and Markos discussed students' difficulty to use the correct language, and punctuation as well as maintaining unity and organization when writing. Elsabet discussed that "they [students] were not able to generate ideas. Even some students did not write a word. It was very difficult for them to express their idea in English. There were grammar and punctuation errors, and some students even wrote a paragraph that does not make sense" [SRI1].

4.5.2. Instructor-related Factors

Like the student-related factors, the instructors explained different instructor-related factors. They mentioned instructors' wrong perception of CT promotion, lack of commitment, and insufficient knowledge of CT. Natnael believed that instructors perceive CT as a difficult ability. Therefore, they refrain themselves from nurturing the skill in writing classes. In Wendu's view, the problem lay in instructors' lack of commitment to give attention to promoting students' CT. Tilahun, on the other hand, stated about instructors' limited knowledge of CT. He said that "even leaving alone our students, I doubt if we teachers as teachers are critical thinkers" [M int]. In his view, instructors, especially at the tertiary level, took teaching as a routine activity instead of upgrading their pedagogical knowledge and adapting to recent advancements in the education sector.

Furthermore, hindering factors concerning instructors' tendency to cover content, and avoid feedback provision were explained. In this regard, Natnael clarified that instructors, in most cases, are pressured to cover content due to the limited time allocated to the course. Adding to this, Tilahun considered instructor feedback as a relevant mechanism to promote students' CT. He, however, believed that instructors do not provide the required feedback on students' work. He reflected that:

> For several reasons, we teachers do not give our students the necessary feedback. Because reading is time-consuming and we teachers are not good readers, we fail to read their writing. So, we simply put a big X and give them back without any feedback. Because of all these things, we fail to help students critically see their gaps [M int.].

4.5.3. Situational Factors

In addition to the aforementioned hindering factors, the instructors elaborated on situational factors related to a shortage of time, a large class size, and problems with the course material. The instructors associated different inconsistencies between their plans and practices with the shortage of time. For example, during the first observation session, Wendu planned to allow students to do the writing activity in groups. Nonetheless, he changed his plan and ordered students to do the activity individually. On the contrary, in the second observation session, Biruk planned to assign a writing activity to be performed individually. During the actual classroom, however, Biruk allowed the students to brainstorm ideas in groups and produce a paragraph together. In these two

different instances, Wendu and Biruk mentioned the shortage of time as a substantial factor. Similarly, Biruk altered his plan from allowing peer feedback to providing instructor feedback during the second observation session. In this case, he said that:

> Because of time, I should comment by myself. It was difficult to do peer feedback. So, I was forced to give feedback or comments, though what I gave was not sufficient [SRI2].

The instructors, in general, believed that the insufficient allocation of time for the course forced them to change the method that they thought was helpful to promote students' CT. This pressured them to focus on superficial issues.

Furthermore, Natnael and Markos complained about the large class size. They explained that promoting CT in writing classes demands a close follow-up to ensure whether each student engages in demonstrating the skill in writing or not. The large class size problem, thus, forced Natnael into conflicting decisions. He wanted every student to engage in the process of writing, yet he mentioned the difficulty to apply this while assigning group work. Natnael said,

> All students might not take part because it is writing. The other members might contribute certain information instead of writing a sentence or a paragraph. I wanted every individual student to write, but that might be difficult because I expected them to produce one paragraph as a group [SRI1].

The instructors, additionally, reflected varied insights concerning the course material (Communicative English language skills module). They believed that the material, to some extent, contributes to the promotion of students' CT in writing classes. In Biruk's view, the module incorporated various topics so that students have ample exposure to exercise CT. He explained that “the communicative English skills II course material can support students’ CT because it has different topics. When students write on different topics, they develop their CT” [M int.]. According to Elsabet and Natnael, students can execute CT or analyze, evaluate, and synthesize information since the material included some familiar topics that align with students' background knowledge. On the contrary, Tilahun reflected that the activities are not authentic. He denoted:

> I cannot say that the module contributes nothing to the promotion of students’ CT. However, the writing activities that we incorporate in our module are taken directly from

> different books that are not authentic […] For instance, if you ask me why we incorporated life skills in there? I do not respond to you [M int.].

Tilahun believed that students tend to think critically and add value only when they perform authentic activities. In his statement,

> If we were capable of making the activities authentic, environmentally friendly, resource full, and based on what is going on in our society, it was very helpful for our students to think and try to add what they know. They also get what they do not know. By this, CT will be realized because they have a substance in their mind. We can instigate that potential in their mind [M int.].

Biruk, on the other hand, stated that students may not consciously apply CT whenever they do writing activities due to the absence of any explicit explanation about CT in the material. Adding to this, Makos, Elsabet, and Wendu indicated that the writing activities in the module are not sufficient. Students do not obtain adequate exposure to practice CT since they do not continually do writing activities.

4.6. Discussion

4.6.1. What are Instructors' Beliefs and Practices of Promoting Students' Critical Thinking Skills in University Writing Classes?

The study sought to uncover instructors' beliefs and their practices in promoting students' CT skills in university writing classes, and students' CT and writing performances. According to the finding, the participants considered CT as the ability to possess in-depth understanding, provide reasonable ideas, and look at things from different perspectives/dimensions on the given writing topic. This interpretation indicates that they viewed CT from three perspectives: depth, breadth, and logicalness of ideas. As Kanik (2010) elucidated, the definitions implied the purpose that the participants attached to CT. The finding is consistent with different scholarly works (e.g., Beyer, 1984; Chaffee, 2012; Ghaemi & Mirsaeed, 2017; Meng, 2016) in which CT was considered as the mental ability to incorporate evidence and reason to convey ideas logically.

Accompanying the definition, the participants illustrated certain CT elements. Most of the instructors mentioned analysis, synthesis, and evaluation skills as components of CT. They also

added knowledge, recalling, application, thinking inspiration, and broad-mindedness as the aspects of CT. Markos, among the others, had no idea about what CT embraces. The others were unable to clearly explain the application of these CT elements in the context of teaching/learning writing skills. This indicates the limited familiarization of the participants with CT in connection to writing skills. Among the lists, the analysis, synthesis, and evaluation skills accord Bloom's (1956) higher-order thinking skills. The knowledge and application skills are related to the lower-order thinking skills in the taxonomy. The elements of thinking inspiration and broad-mindedness have a certain conceptual resemblance with Facione and Facione's (1992 as cited in Facione, 2000) components of CT disposition. The result is consistent with different studies (e.g., Assadi et al., 2013; Kanik, 2010; Marijic & Romfelt, 2016; Meng, 2016; Tuzlukova et al., 2017) with similar findings.

Regardless of their confusion to clarify how the CT elements operate in writing skills, the participants elaborated on the reciprocal relationship between CT and writing skills. They considered CT as a prominent aspect throughout the writing process. They believed that CT enables students to generate broader and more detailed information, scrutinize the relevance of ideas to the central issue, logically associate concepts, and include evidence or reasons. Equally, the participants signified writing as a means to improve students' CT. In this respect, Coffin et al. (2003) explained that "writing is as an evaluation process, helping to promote CT, and developing the students' communication and professionalism" (p.20). Likewise, Paul and Elder (2002) stated the necessity of CT to produce well-organized written works and the requirement of an effort to develop quality written texts that display CT ability. Harizaj and Hajrulla (2017), more specifically, indicated that CT helps students to extend their vocabulary knowledge and enables them to operate the language for different purposes. Other researchers (e.g., Retnawati et al., 2018; Singh et al., 2017) signified the purpose of CT in recognizing, making a connection, and operating prior knowledge to current issues as well as comprehending, processing information, and generating relevant ideas when writing.

Mentioning the intimate relationship between CT and writing skills, the participants advocated CT as a relevant ability for university students to accomplish written tasks with sufficient depth and breadth. They stated that students, in most cases, are expected to accomplish written assignments that demand critical evaluation of the relevance of ideas, justification of assumptions, and inclusion of diverse sources of knowledge. This result suggests the necessity of activating students'

consciousness about CT skills. In this regard, Matthews and Lally (2010) affirmed the requirement of possessing CT ability to do writing tasks at the university level due to the intimate relationship between "writing, thinking and reasoning" (p. 137). Furthermore, the finding agrees with what experts (e.g., Iman & Angraini, 2018; Itmeizeh & Hassan, 2020; Leach, 2011; McMillan, 1987; Toshpulatova & Kinjemuratova, 2020) elucidated about the necessity of CT. For example, stressing the inevitability of students' CT ability, Islamiyah and Al Fajri (2020) clarified that "CT is essential in education, especially at the university level, as it is a default assessment of academic writing in such a level of education" (p. 7).

The result indicated several instructional mechanisms that the instructors believed were helpful to promote students' CT skills in writing lessons. These included input provision, facilitating, and assigning collaborative and individual works. The participants described input provision as an activity of establishing a foundation for students to exercise CT in writing skills. As Elsabet described knowledge leads to application. Mentioning Krashen's (1982) hypothesis, Natnael argued that students' CT in writing lessons becomes activated when the input is beyond students' current level (i+1). Tilahun reflected on the possibility of stimulating students' thinking by complementing the input provision with the Socratic Method. The participants indicated their role as a facilitator. Adhering to their beliefs, they provided inputs about paragraph and essay writing. Nonetheless, most of the input sessions hardly involved novel aspects as compared to contents in the lower grades. In most cases, the instructors' questions demanded students' knowledge and comprehension instead of higher-order thinking skills such as analysis, synthesis, and evaluation. The instructors, however, maintained interaction with students by explaining the activities, clarifying confusion, giving clues, helping students to recall core points, and appreciating responses. This finding agrees with the socio-cultural theory.

In light of sociocultural theory, teachers are considered as mentors who assist students to exercise CT skills. They carry out this responsibility by assigning activities, facilitating classroom interactions, and questioning. Teachers are expected to be efficient 'intentional teacher' who is considerate, ready, and reflective for the successful promotion of students' CT. Scaffolding students by providing cues, reminding students of relevant points, and encouraging them is considered crucial to CT development (Leach, 2011; Slavin, 2012). According to Slavin, an effective teacher involves CT when teaching content. Orszag (2015) asserted that "to develop

students' CT ability, teachers should not center their instruction on content knowledge, but help students to use the content to question their existing beliefs, attitudes, and views and to develop new ones" (p.12). Likewise, classroom interaction that involves questioning and praising students' responses is regarded as helpful. Masek and Yamin (2011) signified the importance of probing questions in augmenting students' reasoning skills by stimulating their cognitive processes. In addition, Masadeh (2021) elucidated students' ability to extend their exploration skill when they obtain appreciation for their responses and their thought is valued.

The finding, furthermore, revealed contradicting results between the participants' beliefs and their practices related to the implementation of collaborative works. They illuminated that allowing students to perform writing tasks in collaboration helps them to share experiences, learn different strategies, minimize errors, and develop a written product with adequate depth and breadth. Contrary to their belief, Elsabet and Wendu never allowed students to work on the writing activities together. These instructors believed that writing requires independent thinking and students tend to exhibit their viewpoints when working the activities individually. Supporting this view, Biruk, Natnael, and Tilahun added that assigning individual works compel idle students to think critically and identify individual weakness and strengths. However, throughout the observed sessions, Biruk and Natnael informed the students to complete the writing activities in groups.

Several perspectives are reflected concerning the disparity between instructors' beliefs and their practices. Belief by its nature is a complex system in which the implicit and explicit beliefs of instructors create differences in their practices (Fives & Gill, 2015; Zheng, 2015). In explaining the reason for the incongruity, Skott (2015) argued that the belief that guides teachers' practices differs from the belief that filters information and gets reflected during interviews. Thus, as different authors (e.g., Buehl & Beck, 2015; Fives & Gill, 2015; Zheng, 2015) stated, teachers' dependence on the belief that is perceived to be suitable for the immediate complex context creates the disparity. In other words, the constraints in the learning context influence teachers' decisions. Lan and Lam (2020), on the other hand, argued that teachers are likely to take actions that accord with their beliefs if they hold strong beliefs in that respect. The finding is in contrast to Hasni et al's (2018) study that indicated consistency between teachers' beliefs and practices in promoting students' CT. This might be due to the weakness of the contextual constraints in influencing the teachers' beliefs. On the contrary, the finding agreed with Bataineh and Alazzi's (2009) study that

reported the disparity between the participants' beliefs and their practices in using strategies that they claimed were useful to promote students' CT.

Regardless of the aforesaid disparities, the classroom observation and the students' perceptions results indicated that the instructors encouraged student-student interactions. Students were allowed to interact with their peers to share experiences, argue on a particular topic, and ask for clarification. This practice accords with the social interactionist theory, which is the core aspect of sociocultural theory. Johnson (2009) argued that "meaning does not reside in language itself, but instead in the social group's use of language […]" (p.2). Meaningful interaction in the educational context is crucial to facilitating cognitive development in the Zone of Proximal Development (ZPD) (Bot et al., 2005). Moreover, practitioners (Buranapatana, 2006; Dwee et al., 2016) argued for the requirement of collaboration to promote students' CT in writing classes since this strategy allows students to share skills and resources.

In addition, as CT-promoting instructional mechanisms, the participants mentioned the implementation of the process writing approach, writing-and-reading skills integration, and the explicit introduction of CT. Accordingly, the results from the classroom observation and students' perceptions revealed that the instructors encouraged students to employ process writing when doing the writing activities. Nonetheless, they were reluctant in insisting students continue writing after receiving comments on the drafts, though a few students maintained writing. Besides, Biruk and Elsabet frequently suggested students incorporate justified evidence and examples, while Tilahun, Natnael, and Wendu were better at supporting students to clarify ideas in writing. Contrary to their views about writing and reading skills integration, the instructors declined in assigning separate time for students to read the passages while doing the writing activities. Similarly, the explicit introduction of CT was not prevalent in the writing classes. These findings imply the instructors' inability to effectively align their beliefs with their practices.

Numerous scholarly works (e.g., Buskist & Irons, 2008; Facione, 2000; Wilson, 2019) signified that students become aware of specific CT elements and apply them whenever needed if CT components are explicitly introduced. Instructors, however, need to have a good foundation in the aspects of CT to explicitly introduce the concept in integration with writing. The absence of an explicit introduction to CT, however, cannot imply the devoid of students' CT promotion in the

writing classes. As Gregory (2011) explained, the beliefs teachers held about CT implicitly dictate them to prefer CT-promoting strategies. Similarly, Matthews and Lally (2010) underscored the importance of following a writing process approach because it assists in "focus thinking and sharpen thinking and reasoning within the subject" (p.137). Wang (2012), moreover, underlined the significance of reading skills to promote students' CT since reading demands the ability to be analytical, introspective, elaborative, and evaluative. Similarly, Dong's (2015) and Mehta and Al-Mahrouqi's (2015) studies revealed the necessity of students' reading habits for the sake of extending their experience and thereby executing CT when writing.

Moreover, according to the participants' view, students demonstrate CT when writing on familiar as well as challenging writing topics. Argumentative, cause-effect, compare-and-contrast, summary writing, jigsaw task, and jumbled sentences were mentioned as CT-promoting writing activities. During the observed sessions, the participants gave varied writing activities such as concluding, argumentative, problem-solution, informative, and process paragraph writing. According to the students' perceptions, writing activities such as note-taking and summary writing, compare-contrast, and logical arrangement of ideas were implemented at a relatively lower frequency. Consistent with this finding, studies (e.g., Pei et al., 2017; Slavin, 2012; Willingham, 2007) underscored the influence of topic meaningfulness/familiarity on students' ability to generate multiple perspectives and formulate sound reasoning. Similarly, Kanik's (2010) study revealed that the meaningfulness of the activity to students triggers their motivation to critically perform the activity. Moreover, the results of several studies (e.g., Çavdar & Doe, 2012; Dong, 2015; Mulnix & Mulnix, 2010; Toshpulatova & Kinjemuratova, 2020; Tuzlukova et al., 2017) indicated the relevance of writing activities such as argumentative, reflective, summary, report, and blog writing to promote students' CT. These types of activities demand students to be aware of inconsistencies, confusion, or incompleteness and their biases when writing.

The instructors underlined the importance of instructor feedback, peer feedback, and self-reflection in improving students' CT and writing skills. According to the classroom observations and students' perceptions, the instructors mostly implemented instructor feedback and peer feedback. Elsabet, Biruk, and Natnael advised students to self-edit their work based on the given criteria, though they did not assign a separate time to students. The participants reflected that peer feedback stimulates evaluation skill, triggers a consideration of the writer's impression, contributes to varied

insights, and instigates motivation. On the contrary, Elsabet, Tilahun, and Wendu preferred instructor feedback because of their beliefs that students are incapable of peer commenting. Regardless of a prominent focus on grammar and mechanics, the instructors' evaluation criteria included clarity, unity, coherence, completeness, and paragraph structure. These criteria, according to their beliefs, signify the level of students' CT and writing abilities. This finding is consistent with Walker and Diaz (2003), who explained the relevance of commenting on the content, grammar, and mechanics aspects of students' writing. Similarly, Al-Bakri's (2016) study showed the teachers' emphasis on errors related to grammar, vocabulary, and mechanics. The finding agrees with Jabr's (2003) study that revealed the insufficient chance the students obtained for peer feedback. The researcher argued that depriving the opportunity for peer feedback restrains students' ability to recognize their mistakes and make improvements. Peer feedback elevates students' analytical and problem-solving skills (Daud, 2012; Liu, 2018).

4.6.2. How do instructors' beliefs about students' critical thinking and writing performances and their practices in promoting students' critical thinking skills associate with students' performances?

The finding signified that the participants considered students as having inadequate performance in CT and writing performances. In Biruk's and Elsabet's perspective, students are poor in their CT performance since their written products lack depth as well as convincing, logically arranged, and relevant ideas. Instead of mentioning additional indicators of poor CT performance, the participants took students' inadequate writing performance as evidence of their poor CT ability. This implies the participants' limited understanding concerning the assessment of students' CT in written works. The instructors, moreover, indicated problems in organization, grammar, mechanics, relevance and sentence clarity, and structure of a paragraph as indicators of students' poor writing competence. The analysis of students' CT and writing performances in essays 1 and 2 agreed with the instructors' beliefs. Except for students in Natnael's and Biruk's classes, students in the other sections scored below average in most of the CT indicators. Similarly, students' writing performance in essays 1 and 2 was below average in most of the writing skills standards.

Despite the aforementioned problems in students' CT and writing performances, the instructors indicated the prevalence of minimum improvement. They mentioned improvement in students' CT

ability in terms of including convincing ideas and arranging points logically. Likewise, the participants considered students' attempts to construct grammatically correct and meaningful texts as a sign of improvement in students' writing skills. The analysis of students' CT and writing performances in essay 2 signified minimum improvements. The paired samples t-test result, nonetheless, indicated the absence of significant differences in students' performances in essays 1 and 2. This result implies the instructors' close follow-up of students' progress. Yet, instructors' adequate awareness and persistent implementation of CT-promoting instructional mechanisms, activities, and feedback provisions precede significant improvements in students' performances. The correlation result revealed a strong positive association among students' CT performance, writing performance, and students' perceptions of the promotion of CT in writing (SPPCTW). According to the regression analysis, the SPPCTW sub-scales (CI, IM, NWA, SFP) significantly predicted students' CT performance and writing performance, respectively. This implies the determining power of students' perceptions of instructors' practices on students' academic performance.

The findings are in harmony with the perspective of complexity theory. Several experts (e.g., Behar-Horenstein et al., 1996; Fives & Gill, 2015; Pajares, 1992; Schraw & Olafson, 2015; Turner et al., 2009) denoted the influence of teachers' beliefs in shaping their classroom practices. Teachers' beliefs about students' CT performance determine their practices of promoting CT (Orszag, 2015). Warburton and Torff (2005), in this case, elucidated that teachers tend to assign CT-stimulating activities to students whom they believe are high achievers while the low achievers perform activities that demand lower-order thinking skills. In the light of complexity theory (Zheng, 2015), the participants might be restrained from creating sufficient exposure to students to exercise CT in writing classes due to their negative beliefs about students' CT and writing performances.

In explaining the impact of instructors' classroom practices on students' performances, NeSmith (2003) asserted that teachers' classroom practices impact students' perceptions that inversely influence their performance. Students' perceptions of the teaching practices and overall events in the classroom influence their cognitive processing, motivation, or willingness to actively engage in the learning process, which ultimately impacts their performance (Kurniawan, 2015). Results on the relationship between students' perceptions of the teaching process and academic

performance are inconclusive. Ferreira and Santoso (2008) argued that students' learning outcome is more influenced by their perceptions of teaching than the teaching method used in the classroom. Carter's (2021) study inversely revealed no relationship between students' perceptions of the teaching process and their academic performance. In reverse, Du and Zhang's (2022) study showed a significant impact of students' academic performance on their perceptions of the CT learning environment. In other words, students' language proficiency determines their perceptions of a CT-nurturing learning environment.

Along with the students' perceptions of the teaching practices, some factors might have contributed to the insignificant improvement in students' CT and writing performances. There were instances in which the instructors failed to diligently apply what they claimed was helpful to promote students' CT in writing classes. Besides, significant improvement in students' CT and writing skills can be attained when CT is explicitly introduced to students (Dong, 2015; Facione, 1990; Meng, 2016). In this regard, Abad and Al-Atrash (2019) argued that when students are conscious of CT skills, they may evaluate their ideas and present their perspectives with adequate logical details. This in turn is assumed to enable students to enhance their writing performance.

4.6.3. What factors influence instructors' practices of promoting students' critical thinking skills in university writing classes?

The finding, additionally, revealed hindering factors that influenced the promotion of students' CT in writing classes. The instructors mentioned several obstacles related to students, instructors, and situational factors. The student-related factors were negative perceptions towards writing, change-resistant behavior, negligence of CT-oriented activities, unwillingness to spend sufficient time on CT, lack of readiness, being passive, and poor writing competence. Similarly, interfering factors related to instructors included limited CT ability, negative perceptions of CT promotion, a tendency to cover content, and insufficient commitment. Furthermore, the situational factors were large class size, time constraints, and problems with the course material. The instructors explained the inadequate writing activities and the absence of explicit CT discussion in the communicative English Skills II course module. These findings imply the importance of adapting different problem-handling strategies and refining the quality of the course material.

According to the principle of complexity theory, the hindering factors are included in the category of contextual factors. These contextual factors mediate between instructors' beliefs and their practices in promoting students' CT in writing classes, which in turn influence students' outcomes (Mansour, 2009; Zheng, 2015). Instructors' beliefs play a significant role in interpreting the context and influence the instructors to act accordingly. That means their beliefs about the hindering factors prevent them from enacting their beliefs (Skott, 2015; Zheng, 2015). As different experts (e.g., Buehl & Beck, 2015; Zheng, 2015) highlighted, hindering contextual factors create inconsistency between instructors' professed beliefs and their practice. Therefore, there is an interrelationship among instructors' beliefs and practices in promoting students' CT in writing classes as well as students' outcomes and contextual factors.

The finding is consistent with several studies. For example, the result of some studies (e.g., Bataineh & Alazzi, 2009; Schulz & FitzPatrick, 2016) indicated that teachers isolate CT from subject matter content, and believe that students learn to think critically only after they acquired content knowledge. Because of this belief, teachers became negligent of students' CT. Likewise, other studies (e.g., Petek & Bedir, 2015; Schulz & FitzPatrick, 2016) revealed teachers' beliefs that students' insufficient prior knowledge and inadequate language competence affect their CT ability. Besides, the study showed teachers' assumption that CT is a difficult endeavor for low academic achievers (Schulz & FitzPatrick, 2016). Similarly, Bataineh and Alazzi's (2009) study showed the absence of guidance teachers obtained concerning strategies that are helpful to handle CT-oriented activities. Teachers' lack of interest, students' irresponsibility for their learning, time, and large class size constraints were explained in some studies (e.g., Bataineh & Alazzi, 2009; Ganapathy et al., 2017; Kanik, 2010; Petek & Bedir, 2015; Slavin, 2012).

CHAPTER FIVE: SUMMARY, CONCLUSION AND RECOMMENDATIONS

5.1. Summary

Students' efficient writing competence is the backbone of their academic effectiveness, particularly at the tertiary level. It has become an implicit requirement that students' written work has to exhibit their CT ability on various issues. In the process of equipping students with the required writing skills, instructors' role is indispensable. The study, therefore, aimed at investigating instructors' beliefs and practices in promoting students' CT skills in university writing classes and students' CT and writing performances. The study specifically addressed questions on instructors' beliefs about the promotion of students' CT skills in writing classes, and how their classroom practices encourage students to demonstrate CT in writing skills. The association among the instructors' beliefs about students' CT and writing performances, instructors' practices, and students' CT and

writing performances obtained attention. Moreover, factors that affect instructors' classroom practices were the main concern of the study.

The purpose of the study was attained by adopting a multiple case study design along with a mixed concurrent strategy (QUAL+quant). The participants were six purposively selected instructors from the English Language and Literature department at Debre Tabor University. In addition, 244 students who were being taught the Communicative English Language Skills II course by the selected instructors participated. Classroom observation, interviews, a students' questionnaire (SPPCTW), document analysis, and essay writing were the data collection methods. The classroom observation was carried out using field notes and classroom observation protocol. The quality of the writing activities that the instructors gave to students during the observed sessions was analyzed using document analysis criteria. Pre-observation interview and stimulated recall interview accompanied the observation. The main interview, however, followed the completion of the overall observation sessions with each instructor. Students wrote two essays to examine their CT and writing performances. After submitting the second essay, they filled out the 38 items questionnaire. The data analysis involved a qualitative strategy that included three stages of coding- open, axial, and selective coding. Quantitative data analysis including descriptive statistics (percent, mean, and standard deviation) and inferential statistics (correlation coefficient, a paired sample t-test, and multiple regression) were computed.

According to the findings, the instructors reflected their beliefs about the concept of CT and its elements, the relevance of students' CT skills in writing skills in university, and CT promoting teaching strategies, writing activities, and feedback provisions in writing classes. They described CT as the ability to have a thorough understanding, logical reflection of ideas, and adopt multiple outlooks. They mentioned different CT elements such as analysis, synthesis and evaluation, knowledge, recalling, application, back-and-forth thinking, thinking inspiration, and broad-mindedness. The instructors were, however, uncertain about the application of these elements in writing skills, and they mixed up the lower-order and the higher-order thinking skills. Regardless of this confusion, they believed that CT skills are relevant for university students to accomplish written works with sufficient quality.

The result revealed that the instructors mentioned several CT-promoting instructional mechanisms that they believed were helpful for the improvement of students' CT and writing skills. These were

input provision, facilitating, implementing a process approach to writing, integrating writing and reading, assigning collaborative and individual works, and explicit introduction of CT. As the observation data and the students' questionnaire responses indicated, the instructors' facilitation role involved instructor-student and student-student interactions. The instructors supported students to employ the process approach while doing the writing activities, though they were reluctant in insisting students continue writing after receiving comments on the drafts. In addition, there were some contradictions in the instructors' beliefs and practices, particularly related to their advocacy of collaborative learning, the Socratic questioning method as well as reading and writing integration. Moreover, According to the students' perceptions, writing activities such as note-taking and summary writing, compare-and-contrast, and logical arrangement of ideas were implemented at a relatively lower frequency. The instructors explained the significance of instructor feedback, peer feedback, and self-reflection in improving students' CT and writing skills, though some of the instructors preferred the instructor feedback strategy.

The finding, additionally, showed that the instructors believed students have inadequate CT and writing performances. They mentioned students' insufficient writing performance as evidence of their poor CT ability. Consistent with the instructors' beliefs, the students scored below average in most of the indicators of students' CT and writing performances. On the other hand, the correlation result revealed a strong positive association among students' CT performance, writing performance, and the SPPCTW. Besides, the SPPCTW significantly predicted their performances. Furthermore, the instructors explained several factors that interfere with the practices of promoting students' CT in writing classes. Some of the student-related factors included negative perceptions towards writing, change-resistant behavior, negligence of CT-oriented activities, and poor writing competence. On the other hand, limited CT ability, negative perception of CT promotion, and tendency to cover content were among the instructor-related factors. Situational factors included large class size, time constraints, and problems with the course material.

5.2. Conclusion

The instructors reflected their beliefs about the promotion of students' CT skills in writing classes, though some of their beliefs failed to align with their classroom practices. As the finding indicated, the instructors' beliefs about the interpretation of CT dictated their subsequent explanations on various issues. They considered CT as the ability to have a reasonable, broader, and in-depth

understanding. They believed knowledge, application, analysis, synthesis, evaluation, back-and-forth thinking, and open-mindedness are components of CT. The instructors, however, declined to consolidate these elements with the teaching/learning of writing skills. This shows their limited understanding of CT in relation to writing skills. Based on their definition of CT, however, the instructors illuminated the crucial role of students' CT skills in generating relevant and sufficient details, maintaining logical organization, and including justification. They believed that university students should possess CT ability to perform written works efficiently.

The instructors' belief about the requirement of students' CT abilities for students' better writing performance did not, nonetheless, guarantee their implementation of some helpful instructional strategies persistently. According to the finding, the instructors mentioned various CT-promoting instructional mechanisms such as interactive lectures, facilitating, process approach, reading and writing integration, collaborative work, and explicit CT introduction. Contrary to their advocacy that writing needs individual thinking, some of the instructors assigned writing activities to be performed in collaboration. Inversely, there were some instructors who maintained giving tasks individually despite their beliefs that collaboration makes a work have depth, breadth, and minimum errors. The participants explained that integrating writing and reading skills enables students to analyze, synthesize and evaluate issues and possess a logical and in-depth understanding of particular writing issues. Nonetheless, they overlooked encouraging students to read the passages that accompanied the writing activities. In addition, the significance of the explicit introduction of CT in writing classes was underscored, though the writing classes were devoid of this practice. Moreover, despite the instructors' explanation of the relevance of the Socratic questioning strategy and i+1 input provision, the inputs were hardly beyond the students' current understanding level. Besides Most of the instructors' questions sought for the students' lower-order thinking skills. These inconsistencies signify the necessity of possessing an adequate understanding of CT skills to systematically and consistently implement various instructional strategies regardless of several impeding factors.

In addition, apart from the nature of the writing activities, the instructors' guidance of students on how they should handle the writing activities determines students' exposure to demonstrating CT in writing classes. The instructors explained the relevance of certain types of CT-promoting writing activities such as argumentative, cause-effect, process paragraph writing, compare-

contrast, summary writing, creative writing, paraphrasing, and narrative. Nonetheless, as the finding indicated, instructors used different instructions. For instance, after assigning an argumentative paragraph writing, one of the instructors informed students to include the perspective of the opposite sides along with their viewpoints. The other instructor, however, instructed students to stick to reasoning out their perspectives. Similarly, some of the instructors permitted students to do a writing activity by selecting a topic of their preference among the given topics, while the other instructor ordered students to write a paragraph on a topic that he assigned. Besides, except for one instructor, the others had no determination to assign a home take writing activity. It is indubitable that incorporating different writing activities in course materials widens students' writing experiences. Nonetheless, the benefits of the activities to students are dependent on students' understanding of the ways of handling the activities. Equally, instructors guide students to invest their optimum effort and CT abilities to produce well-written texts if instructors sufficiently understand the strategies to subsume/integrate CT skills with different writing activities.

Moreover, scaffolding students to the subsequent learning level demands instructors to employ instructional strategies different from the accustomed ones despite students' struggles to attain the required aim. Students are unlikely to exhibit a significant change in their writing endeavors if the learning environment remains predictable. As the result indicated, the instructors underlined the significance of peer feedback, self-reflection, and instructor feedback to promote students' CT in writing classes. They argued that peer feedback compels students to demonstrate CT components since they have to evaluate ideas, understand the writer's impression, and reflect varied insights. Some of the instructors, nevertheless, implemented instructor feedback due to their beliefs that the students were not competent to provide peer feedback. The instructors considered instructor feedback as a mechanism to identify students' gaps and broaden students' thinking. Yet, some instructors implemented both feedback strategies interchangeably. Students' self-reflection did not obtain sufficient attention, though some of the instructors implicitly encouraged students to self-reflect on their written works by informing them of the evaluation criteria.

In general, the instructors explained various student-related, instructor-related, and situational factors attributed to the inconsistencies between their beliefs and practices in promoting students' CT in writing classes. Instructors forecast potential impeding factors and adopt different problem-

solving mechanisms if they hold concrete beliefs about the relevance and applicability of a particular CT promoting instructional strategies, writing activities, and feedback provision strategies. This, however, demands instructors' adequate awareness about CT, the association between CT skills with writing skills as well as various CT-promoting mechanisms in writing classes. Regardless of the interfering factors, instructors' classroom practices ultimately determine students' performances. Students act accordingly to how they perceive the instructors' expectations for them to learn writing skills. If they perceived that instructors impose higher expectations, they strive to exert their maximum effort to fulfill their responsibilities. In this regard, the finding revealed that there was a strong positive relationship between students' CT performance, writing performance, and the SPPCTW. Besides, the SPPCTW subscales (CI, IM, NWA, and SFP) significantly predicted students' CT and writing performances.

5.3. Recommendations

Despite the relatively limited scope and number of participants involved in this study, the in-depth investigation of the present issue provides a significant contribution to the area in which similar studies are scant. As the findings indicated, instructors' beliefs and practices in promoting students' CT in writing classes influence students' CT and writing performances. This instigates the need that instructors should reconsider their beliefs and practices. It is helpful that instructors examine their beliefs about students' CT, its association with students' writing skills, and the possible strategies to promote students' CT in writing classes. It is equally relevant for instructors to reflect on their classroom practices to ascertain the extent that their practices create exposure to students to demonstrate CT and thereby enhance their writing skills. Instructors have to consider how students perceive their practices of promoting CT in writing classes. Students' outcomes are impacted by their perceptions since students tend to act according to their perceptions of the instructors' practices.

Instructors' awareness of the promotion of students' CT in writing classes precedes the practice of promoting it in the classroom. The implication of the study extends to teacher training institutes or universities to prepare pre-service and in-service training and workshops on an explicit explanation of CT and CT-promoting strategies in writing classes. Instructors need to have an ample understanding of CT and its elements, the mechanisms to promote students' CT in writing classes, and ways of examining students' CT ability in written works. There were instances that

the instructors implemented CT-promoting instructional mechanisms, writing activities, and feedback provision systems. This, however, occurred without the instructors' conscious effort to promote students' CT, though they explained the relevance of their practices to the promotion of students' CT. Possessing awareness about CT enables them to persistently implement helpful strategies regardless of the hurdles instead of resorting to routine practice. They may take the responsibility to create exposure for students to demonstrate CT using various teaching strategies that fit students' language competence. Informing pre-service teachers about the different obstacles, and potential problem-solving strategies helps them to regulate their practices.

Furthermore, regardless of the fact that university education requires students to accomplish several written works that mostly require students' CT ability, the attention dedicated to writing skills is not sufficient. This, however, is not meant to undermine the relevance of other language skills. Yet, as the students' results indicated, they are in need of sufficient exposure to the aspects of writing skills and engaging in performing different writing activities that stimulate their CT ability prior to joining their respective fields of study. Syllabus designers are, therefore, suggested to facilitate the opportunity for students to get sufficient writing lessons along with an explicit introduction to CT skills. Instructors' promotion of students' CT skills might not bring significant changes in students' performances unless students consciously execute CT skills when learning writing lessons. This introduction of the CT skills can be done by explicitly infusing the CT aspects with the writing lesson syllabus and by integrating the CT components with writing activities. Conducting writing lessons in integration with CT components requires a substantial amount of time. Syllabus designers, therefore, should consider allocating a sufficient amount of time for writing lessons.

In addition to the syllabus designers, material writers are recommended to refine the quality of writing activities. The writing activities that were incorporated in the communicative English language skills II course module have the potential to stimulate students' CT, yet they lack authenticity and are few in number. Material writers should design sufficient authentic writing activities that are deeply entangled with students' social and cultural contexts. Integrating such authentic writing activities with different components of CT enables students to demonstrate CT when writing, which inversely impacts their writing skills. Students are likely to entertain CT when accomplishing writing activities that meet their interests and familiar to them. Material writers are,

therefore, suggested to incorporate varieties of writing activities in line with the students' variation in terms of interest, competence, and culture. Students and instructors benefit from the material if it embraces clear direction and guidance about the application of different CT components in alignment with writing activities.

Despite these relevancies of the findings, the study was not without limitations. The instructor participants were few in number, and the study did not consider students' perceptions of CT and their CT skills implementation in writing skills. On the basis of these gaps, the study recommends further research on the following areas:

i. Students' perceptions and their implementation of CT in writing skills might influence their CT and writing performances as well as instructors' practices of promoting CT in writing classes. Therefore, exploring students' perceptions of CT and their application of CT components in writing skills would be a significant contribution.
ii. In addition, in-depth investigations could be carried out by exploring background factors that influence instructors' beliefs about the promotion of students' CT in writing classes.
iii. Similarly, given the fact that studies in the present issue are scant in general, little is known about how prospective English language teachers are being encouraged to promote students' CT in language learning classes. Therefore, it would be a considerable contribution to investigate the beliefs and practices of English language teacher educators concerning the promotion of students' CT in language learning classes.
iv. Moreover, it could be possible to replicate the present study by considering the following insights:
    - ✓ increasing the number of participating instructors from different universities.
    - ✓ increasing the frequency of classroom observations.
    - ✓ analyzing and comparing students' written works that were accomplished at various writing sessions to examine their CT and writing skills improvement (if any).

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APPENDICES

Appendix A: Classroom Observation Guideline

Date: _____ Time: _____

Stream and Section: _____ Class size:_____

Instructor (Pseudonym):_____ Course Title: _____

1. **Physical organization of the classroom**
    - Management of class time
    - The seating arrangement (the arrangement of the desks, chairs, and chalkboard)
    - the instructor's position in relation to students
    - Students' position in relation to the instructor and to each other
    - The focal point for students' attention

- Light, temperature, and sanitation of the classroom

2. **Instructional Strategies**
    - The effort to create a suitable environment for students to engage in the process of writing (in a recursive manner) and students' initiation to engage in the learning process/ process of writing
    - The practice of designing CT-oriented writing activities and bringing reading texts to class to make students familiar with ways of logically presenting ideas
    - The attempt to model behavior (e.g., recognizing alternative views related to a topic and evaluating the assumptions)
    - The way the instructor gives guidance to activities and follows up on students' attempts throughout the process of writing
    - The opportunities students get to execute the skills of analysis, synthesis, and evaluation of ideas through the process of writing
    - Evidence of students' effort to demonstrate the skills of analysis, synthesis, and evaluation of ideas at the different stages of the writing process
    - The mechanisms used to encourage students to generate ideas, produce multiple explanations about an issue, seek out and value alternative solutions, and new ways of interpreting evidence
    - The attempt to help students write both inside and outside the classroom
    - The attempt to engage all students in the learning process
    - Students attempt to consider ideas other than their own
    - The effort students put to validate their perspectives and arguments with evidence or reason
3. **Classroom Interaction**
    - The role of the instructor (lecturing, explaining, facilitating, guiding activities)
    - The nature of the instructor's questioning (is it to lead students to a predetermined answer? Is it open-ended? Is it to facilitate discourse among students)
    - The role of students (Mostly listening and planning)
    - The way students interact with the instructor (e.g., whole class dialogue)

- The ways students share their ideas with peers or work with peers (in pairs or groups), and come up with a joint solution to a problem or task, evaluate and reflect upon their work
- Students attempt to pose questions, challenge new information/ideas or perspectives

4. Instructional Activities/Exercises

- The type of activities/exercises students are expected to perform, and the time assigned
- The feature of the tasks/exercises (tightly framed, specified or open-ended, authentic problems, activities that demand students to provide evidence for their reasoning or critique others' claims)
- How students carry out the exercises (individually, in pairs, in groups)

5. The Nature of Feedback/comments/

- The practice of commenting on students' text, and ways of initiating students to do self-reflection and peer feedback
- The areas of students' written text that the instructor's comment concentrates on or the instructor's focus on checking the clarity, relevance, logicalness, accuracy, depth, precision, and breadth of ideas.
- The elements students concentrate on during self-reflection
- How do students give comments on each other written products? Does their feedback incorporate evaluating the clarity, relevance, logicalness, accuracy, depth, precision, and breadth of ideas?

Appendix B: Interview Guide for Instructors

1. Shall we start by you telling me a little about yourself?
2. What do you think about the relevance of the learning/ teaching of writing skills to university students?/ Tell me the significance of promoting students' CT in a writing class.
3. How do you perceive the writing competence required of students in university?/ how students' ability to critically think in writing skills is required?
4. How do university students need to be taught writing?/ How do you teach writing?
5. What are your beliefs about the nature of writing activities that enhance students' writing skills?
6. What do you think about the concept of CT (Critical Thinking)/ What comes to your mind when you hear the term CT in the context of teaching/learning writing skills?
7. What would you say about the possible mechanisms to promote students' CT in writing classes?

8. How do you give feedback to your students on their written product?/ Tell me about the nature of the feedback you provide
9. How supportive is the communicative English language skills course in stimulating students' CT in writing lessons, and the overall teaching/learning of writing?
10. How conducive is the learning environment to enact your beliefs about the promotion of students' CT in a writing class?
11. What are your suggestions to the curriculum designers to enhance the practice of promoting students' CT in writing classes at this level?

Appendix C: Students' Perceptions of the Promotion of CT in Writing (SPPCTW)

Questionnaire for Students

Dear student,

The purpose of this questionnaire is for a PhD study intended to explore issues related to the promotion of critical thinking in the instruction of writing lessons. You are thus kindly requested to provide information about your view of the learning situation in writing class. This questionnaire contains statements about practices that may have taken place during writing lessons. There are no 'right' or 'wrong' answers. All your responses remain confidential and will only be used for the study. Please read each item and give accurate responses.

Thank you in Advance!

Part I: Please answer the following questions about yourself.

Gender: (please tick) ☐ Male ☐ Female

Stream: _____ Section: _____

Part II: Indicate how often the following practices occur in writing classes by circling the appropriate number in the box using the following scale:

1. Never
2. Rarely
3. Sometimes
4. Often
5. Always

(**Note**: **if you change your answer, just cross it out and circle another**.)

No.	Classroom Interaction					
1	The instructor gives me a chance to share my opinion.	1	2	3	4	5
2	The instructor motivates me to pose questions.	1	2	3	4	5
3	He/she initiates me to make arguments related to a topic for writing.	1	2	3	4	5
4	He/she allows me to challenge his/her perspective about an issue.	1	2	3	4	5
5	He/she focuses on asking questions rather than giving information.	1	2	3	4	5
6	He/she motivates me to challenge other students' points of view.	1	2	3	4	5
7	He/she gives me a chance to perform writing tasks collaboratively.	1	2	3	4	5
8	The instructor initiates class discussions on topics for writing.	1	2	3	4	5
9	He/she initiates me to be curious to validate my statements.	1	2	3	4	5
10	He/she supports me in handling opposing ideas on a particular topic.	1	2	3	4	5
11	The instructor appreciates my responses (opinions, thoughts, etc).	1	2	3	4	5

Instructional Mechanism

12	The instructor gives me time to generate ideas, write the first draft, revise, and write the final text.	1	2	3	4	5
13	The instructor presents sample text to let me analyze and evaluate ideas.	1	2	3	4	5
14	He/she advises me **NOT** to worry about mechanics, vocabulary, and grammar until I have made my points.	1	2	3	4	5
15	He/she helps me to be aware of the purpose of my writing when developing texts.	1	2	3	4	5
16	He/she encourages me to examine the role of different expressions, words, and ideas when preparing to write.	1	2	3	4	5
17	He/she helps me to identify ideas in support of or against a particular point of view.	1	2	3	4	5
18	He/she supports me in evaluating the relevance and credibility of information.	1	2	3	4	5
19	He/she assists me in considering multiple perspectives/explanations related to a topic in my writing.	1	2	3	4	5
20	He/she suggests I include justified evidence and examples in my writing.	1	2	3	4	5
21	He/she helps me to include relevant and sufficient details in my writing.	1	2	3	4	5
22	He/she supports me to clarify ideas in my writing.	1	2	3	4	5
23	He/she allows me to generate information from various sources on a topic before starting to write.	1	2	3	4	5
24	He/she gives me examples of how to develop ideas logically in writing.	1	2	3	4	5

Nature of Writing Activities

25	The instructor suggests that I practice note-taking and summary writing.	1	2	3	4	5
26	The instructor allows me to do reflective writing activities.	1	2	3	4	5

27	He/she instructs me to do activities that demand comparing and contrasting issues.	1 2 3 4 5
28	He/she gives me activities that require me to identify ideas that support or contest a particular point of view.	1 2 3 4 5
29	He/she gives me writing activities that require including multiple points of view.	1 2 3 4 5
30	He/she assigns writing activities that demand me to include examples and evidence.	1 2 3 4 5
31	The instructor gives writing activities that require me to identify the cause and solution.	1 2 3 4 5
32	He/she asks me to do writing activities on the logical arrangement of ideas.	1 2 3 4 5

System of Feedback Provision

33	The instructor gives me comments throughout the process of writing.	1 2 3 4 5
34	He/she provides feedback on the presentation of my idea (e.g., clarity, relevance, logicalness, accuracy, depth, precision, breadth, and fairness).	1 2 3 4 5
35	He/she provides me the opportunity to reflect on my writing.	1 2 3 4 5
36	He/she assists me to self-reflect on my writing concerning the clarity, relevance, logicalness, accuracy, depth, precision, breadth, and fairness of ideas.	1 2 3 4 5
37	He/she helps me to comment on others' written texts.	1 2 3 4 5
38	He/she helps me to comment on others' written texts concerning the clarity, relevance, logicalness, accuracy, depth, precision, breadth, and fairness of ideas.	1 2 3 4 5

Appendix D: Evaluation Criteria for Writing Skill

Criteria	Scale				Score	Remark
	5	4	3	2	1	
	Very Good	**Good**	**Average**	**Poor**	**Very Poor**	
Content	Remarkable knowledge of the subject and substantiated ideas. Well-developed thesis and topics with pertinent ideas	A fair level of knowledge of the subject and substance. better development of the thesis yet slightly unclear	Some knowledge of the subject and adequate substance. Limited development of thesis, and lacks detail	Limited knowledge of the subject and little substance. Inadequate development of the topic	Does not show knowledge of the subject and is non-substantive. Does not include relevant ideas and is not enough to evaluate	
Organization	Fluent expression of ideas in a brief and well-organized manner. Logical sequence of concepts with	Better expression and organization of ideas. Logical but incomplete sequencing of concepts	Somewhat choppy, loosely organized ideas. Logical but incomplete sequencing of concepts	Non-fluent, confused and disconnected presentation of ideas. Lacks logical sequencing and	Does not communicate ideas, has no organization, or not enough to evaluate	

	efficient use of cohesive devices			development of a concept	
Vocabulary	Wider accumulation of words, and appropriate selection and usage of word/idiom form with explicit meaning	Good range of words, and correct word/ idiom form, choice, and usage, yet slightly obscured meaning	Adequate range of words, and occasional errors of word/idiom form, choice, usage, and obscured meaning	Limited accumulation of words, and frequent errors of word/idiom form, choice, and usage with confusing meaning	Little knowledge of English vocabulary, idioms, and word form, or not enough to evaluate
Language Use	Effective and complex construction of statements with no errors of agreement in tense, number, word order, articles, pronouns, and prepositions	complex construction of statements with few errors of agreement in tense, number, word order, articles, pronouns, and prepositions	Simple construction of statements with several errors of agreement in tense, number, word order, articles, pronouns, and prepositions, yet little obscured meaning	Major problems in the construction of statements with frequent errors of agreement in tense, number, word order, articles, pronouns, and prepositions, and confusing meaning	No mastery of sentence construction rules dominated by errors, and does not communicate or not enough to evaluate

Mechanics	Complete mastery of conventions with no errors in spelling, punctuation, capitalization, and paragraphing	Good mastery of conventions, yet few errors in spelling, punctuation, capitalization, and paragraphing	Occasional errors of spelling, punctuation, capitalization, and paragraphing, yet a comprehensible concept	Frequent errors of spelling, punctuation, capitalization, and paragraphing, and confusing meaning	No mastery of conventions dominated by errors of spelling, punctuation, capitalization, and paragraphing or not enough to evaluate
Total Score					

Appendix E: Evaluation Criteria for CT in Writing

Criteria	Scale					Score	Remark
	5	4	3	2	1		
	Very Good	Good	Average	Poor	Very Poor		
Clarity	Completely comprehensible statements; free from any confusion or ambiguity	Fairly compressible statements despite the obscurity of some words	Comprehensible, but some words or sentences are not clear enough or slightly confusing	Presenting a number of unclear referents or sentences that are not easily comprehensible or rather confusing	Hardly Comprehensible; full of confusion or ambiguity		
Accuracy	Completely free from errors, mistakes, or distortions of	Fairly correct no misleading information	Most of the information is fairly correct; some information needs further verification,	Some of the information is not correct, or with unidentified sources; some	Presenting many errors or mistakes; very misleading		

	information; true; correct		but is not quite misleading	information is quite misleading	
Precision	Completely exact to a sufficient level of detail; presenting sufficient examples and explanations; very specific	Exact to the necessary level of detail; presenting necessary examples and explanations; fairly specific	Exact to the fundamental level of detail; presenting some examples and explanations but not enough; not very specific	Not exact to the necessary level of detail; lacking some necessary examples or explanations; not specific	Not exact to the fundamental level of detail; very general; lacking many necessary examples or explanations; not specific at all
Relevance	Implying a completely close relationship with the task; covering all the key points; presenting no irrelevant information	Implying a fairly close relationship with the task; covering almost all the key points; presenting no irrelevant information	Implying some relationship with the task; not covering all the key points; presenting some information that is not closely related to the task	Not implying a close relationship with the task; missing some key points; presenting some information that is not related to the task	Not implying any relationship with the task; missing all the key points
Depth	Implying thoroughness in thinking; presenting a full understanding of	Implying depth in thinking; presenting an understanding of	Not implying enough depth in thinking; presenting a basic understanding of the	Not implying depth in thinking; not presenting an understanding of	Not implying any depth in thinking; not presenting any basic understanding of

	the complexities of the topic	the complexities of the topic	complexities of the topic	the complexities of the topic	the complexities of the topic
Breadth	Encompassing multiple viewpoints; fully considering differing ideas	Encompassing multiple viewpoints; appropriately considering differing ideas	Encompassing multiple viewpoints to some extent; not broad-minded enough; not fully considering differing ideas	Narrow-minded in perspective; not considering much about differing ideas	Very narrow-minded in perspective; not considering differing ideas
Logic	Completely making sense; no contradictions; no logical errors; providing strongly convincing evidence to fully support all the key viewpoints	Fairly makes sense; no contradictions; no logical errors; provides fairly convincing evidence to support almost all the key viewpoints	Making sense; no obvious contradictions; having occasional errors in logic; not providing enough convincing evidence to support all the key viewpoints	Having some obvious contradictions or logical errors; lacking convincing evidence for several key viewpoints	Having many obvious contradictions or logical errors; lacking convincing evidence for all the key viewpoints
Significance	Having great importance; Showing great substantiality in	Having appropriate importance; Showing	Having importance; Missing some important features; Or presenting	Presenting some features that are not important enough; Not substantial	Not having any importance; Not showing any

	meaning; Highlighting all the important features	appropriate substantiality in meaning; Highlighting most of the important features	certain features that are not important enough	enough in meaning; Not highlighting the important features	substantiality in meaning
Fairness	Presenting ethical appropriateness in the aspects of viewpoints, evidence, argument, and conclusion; the writing is based on verifiable facts; not showing any bias in terms of religion, ethics, gender, age, profession, etc.	Presenting ethical appropriateness in the aspects of viewpoints, evidence argument, and conclusion; the writing is based on verifiable facts; not showing any obvious bias in terms of religion, ethics, gender, age, profession, etc.	Presenting necessary ethical appropriateness in the aspects of viewpoints, evidence, argument, and conclusion; most of the writing is based on verifiable facts; not showing any obvious bias in terms of religion, ethics, gender, age, profession, etc.	Not presenting necessary ethical appropriateness in some of the aspects of viewpoints, evidence, argument, and conclusion; part of the writing is not based on verifiable facts; showing some obvious bias in terms of religion, ethics, gender, age, profession, etc.	Not presenting ethical appropriateness in many of the aspects of viewpoints, evidence, argument, and conclusion; most of the writing is not based on verifiable facts; showing obvious bias in terms of religion, ethics, gender, age, profession, etc

Total Score

Journal of English Language Studies
Available online at https://jurnal.untirta.ac.id/index.php/JELS
P-ISSN 2527-7022 and E-ISSN: 2541-5131
Journal of English Language Studies, 8(2), 232-248; 2023

Appendix F: Writing Activity Evaluation Rubric

	Description
The Nature of Writing Activities	1. Does the writing activity have a clear and appropriate objective? 2. Does the writing activity have clear instructions that explain how the activity can be done? 3. Does the writing activity have a purpose? 4. How is the writing activity designed- in a controlled, guided, or free writing manner? 5. Does the writing activity allow learners to practice writing in a broad range of text types (e.g., informational, persuasive, reflective)? 6. Does the writing activity encourage the use of a process approach to writing? 7. How efficient is the writing activity in enabling students to practice CT ability at various stages of the writing process (e.g., Idea generation, planning, drafting, and revising)? • Does the writing activity allow the learner to go beyond a merely superficial understanding and require interpretive and inferential skills that call critical thinking? 8. Are there reading texts as part of the writing activity? 9. Does the writing activity help students to apply suitable questioning techniques to stimulate thinking?

Journal of English Language Studies
Available online at https://jurnal.untirta.ac.id/index.php/JELS
P-ISSN 2527-7022 and E-ISSN: 2541-5131
Journal of English Language Studies, 8(2), 232-248; 2023

10. How adequate is the writing activity in giving opportunities for students to give their own ideas?
11. How efficient is the writing activity in creating a context from which the purpose for using language emerges?

Journal of English Language Studies
Available online at https://jurnal.untirta.ac.id/index.php/JELS
P-ISSN 2527-7022 and E-ISSN: 2541-5131
Journal of English Language Studies, 8(2), 232-248; 2023

Appendix G: Observation Guideline-Based Review

Second-day observation

Date: Thursday 5/1/23 Time: 8:00 am-9:00 am

Stream: Engineering Class size: 29

Instructor: Biruk Course Title: Communicative English Language Skills II

1. **Physical organization of the classroom**

Biruk was not different from the other participants in terms of his management of time. He did not inform the students of the assigned time for the activity, though he attempted to appropriately manage his time. Concerning the classroom size, there was no problem regarding the size of the classroom in accommodating the number of students. The problem that was evident across the observed sessions was, however, the students' disarrangement of their seats. Despite the students' sitting arrangement, the instructor maintained close interaction with the students after assigning the activity. He closely followed what and how they were doing the activity and explained the activity. In addition, the students were discussing together since they were asked to do the activity in groups. They had the freedom to ask the instructor questions. During the lecture time, students' attention was on the instructor. This, however, did not mean that they were actively attending the lecture. Most of the students were passively listening to what the instructor said instead of responding to his questions. But, later in the session, their attention was diverted to the activity, and began to do the activity enthusiastically.

2. **Instructional Strategies**

Journal of English Language Studies
Available online at https://jurnal.untirta.ac.id/index.php/JELS
P-ISSN 2527-7022 and E-ISSN: 2541-5131
Journal of English Language Studies, 8(2), 232-248; 2023

The instructor attempted to create a suitable environment for the students to engage in a recursive process of writing. He did so by letting students have a discussion together with colleagues and write a paragraph. He later instructed them to write their final draft by incorporating the comments he provided them and bring it in the subsequent session. This specific action was similar to Elsabet who instructed the students to bring the final paragraph that was amended in the light of the comments. Unlike Elsabet, Biruk did not stress informing the students about the stages of writing. Most of the students seemed engaged in the task once they were told to do it in groups. This, in fact, cannot be considered as an exclusive indicator for the students who were recursively writing the paragraph. This particular activity was brought by the instructor; it was not found in the module. Given its argumentative nature, the activity exposes students to think critically. In addition, the instructor clearly informed the students to incorporate the opposite side along with their stand, to provide examples and evidence. It was not, however, supported by a reading passage to make the students acquainted with presenting ideas logically. unlike the other participants, Biruk attempted to model behavior by recognizing alternative sides and encouraging students to incorporate both sides of the argument, yet support their preferred stance with ample examples and evidence.

The instructor gave guidance and followed up students' attempts throughout the writing process. He did these by explaining the activity, providing examples, asking questions, checking on what they did, and advising them to continue writing. The activity was not accompanied by a reading passage. Yet, students might have the chance to execute the skills of analysis, synthesis, and evaluation of ideas since they did the activity in groups. While working in groups, different members of the groups were expressing their opinions. They were discussing the presented ideas before beginning to write. The only evidence that may indicate the students demonstrated the skills of analysis, synthesis, and evaluation was their hot discussion in groups while generating ideas. Allowing the students to perform the activity in groups was one of the mechanisms that were used to make students generate ideas, produce multiple explanations, value alternative solutions, and new ways of interpreting evidence. According to my observation, members in a group were reflecting different points of view, so the other members were striving to convince and develop a paragraph on the agreed point of view. Like the other participants, Biruk did not assign students any writing activity that they need to carry out outside

Journal of English Language Studies
Available online at https://jurnal.untirta.ac.id/index.php/JELS
P-ISSN 2527-7022 and E-ISSN: 2541-5131
Journal of English Language Studies, 8(2), 232-248; 2023

of the class. He, however, instructed them to complete the writing activity by doing the final draft outside of the class and bring it in the subsequent session. While this part was totally left by Natnael, two of the instructors (Biruk and Elsabet) assign this as a home-take activity.

Using different mechanisms, the instructor encouraged students to be active in the learning process. Since most of the students looked passive during his lecture, he was attempting to involve the students by asking them different questions. This attempt, however, did not bring the expected result as most of the students kept unresponsive until the end of the lecture time. On the other hand, the instructor was observing and asking some of the group members how and what they were doing during the group work. Despite this effort of the instructor, there were a few students in different groups who seemed negligent of what was happening. Students' attempt to consider ideas other than their own was highly evident during the group discussion. They were attempting to listen to each other's opinions instead of making the group dominated by the view of a few students. Some of the students presented their points supported with reasons and evidence.

3. Classroom Interaction

The instructor had different roles. He was providing a precise lecture at the beginning. But he later began explaining, guiding, and facilitating the activity while the students started to do the activity in groups. The role of the students was listening to the lecture, making discussions, and producing a paragraph. Most of his questions sought predetermined answerers and were simply asked to get the attention of the students. There were, however, a few questions he asked to facilitate discourse among students. These questions sought the students to reason out instead of providing a simple response. The instructor attempted to create a whole class dialogue during the lecture time, though it was unsuccessful. He, however, maintained his interaction at a group and individual level.

The students attempted to work in groups and came up with a paragraph that contained agreed up on points. Regardless of students' reflections of varied insights during the group discussion, they attempted to write a paragraph on points they agreed on. They, however, did not get the opportunity to reflect on their own work. Students attempted to pose questions, challenge the

Journal of English Language Studies
Available online at https://jurnal.untirta.ac.id/index.php/JELS
P-ISSN 2527-7022 and E-ISSN: 2541-5131
Journal of English Language Studies, 8(2), 232-248; 2023

ideas or perspectives of their colleagues during the group discussion. Apart from asking for clarification of the activity and the feedback that the instructor provided, the students were not in a position to challenge the instructor's perspective.

4. Instructional Activities/Exercises

The activity was writing an argumentative type of paragraph. The students were assigned more than 20 minutes to do the activity, though they were not made aware of the allotted time. The activity was designed by the instructor. The instructor provided the students with two optional argumentative topics so that students could write a paragraph on a topic of their preference. This was contrary to what Natnael did. He did not allow the students to write a paragraph on a topic they selected from the provided alternatives. This activity demanded students to present their ideas or arguments supported with examples, reasons, evidence, and a brief explanation of opposing views. In other words, the students' ability to logically present their argument with adequate depth and breadth of ideas in their paragraphs was required. These requirements were emphasized by the instructor.

5. The Nature of Feedback/comments/

After the students completed writing the paragraph, the instructor started to comment on their work instead of allowing them to do self-reflection and peer feedback. This action is similar to what Elsabet did. She provided comments to the students instead of making them do peer feedback or self-reflection. On the contrary, Natnael preferred peer feedback. Except for differences in the inclusion of a few points in Biruk's criteria, there were similarities in the criteria that the instructors used to give feedback on the students' work. Unlike the others, Biruk gave attention to the students' attempts to incorporate opposing views, reasons, reliable evidence, and examples. In addition, his feedback focused on their use of the appropriate grammar, mechanics, vocabulary, and structure of the paragraph.

Journal of English Language Studies
Available online at https://jurnal.untirta.ac.id/index.php/JELS
P-ISSN 2527-7022 and E-ISSN: 2541-5131
Journal of English Language Studies, 8(2), 232-248; 2023

Appendix H: Observation Report (through field note)

Day Two Observation

Date: Tuesday, 17/01/23 Time: 4:00 pm-5:00 pm

Stream: social science Class size: 38

Instructor: Wendu Course Title: Communicative English Language Skills II

At 4:03 pm the instructor began introducing the lesson, and what the students were expected to do. He highlighted what was included in the passage that the students read in the previous reading class.

Wendu: good afternoon. If you bring the course module, take out the course module. The course module that I gave you- the hard copy. If you did not have I need you to take out the soft copy. Take out the material especially unit two- the writing section- which is called activity 2.1.3. There are three questions.

Wendu: where is the soft copy of the material?

Student 1 [male]: my phone's battery is dead.

Journal of English Language Studies
Available online at https://jurnal.untirta.ac.id/index.php/JELS
P-ISSN 2527-7022 and E-ISSN: 2541-5131
Journal of English Language Studies, 8(2), 232-248; 2023

Wendu: what about the hard copy? I need you to take it out unless I will write the issues on the board. You will practice this activity here in the classroom. This section has three questions. The activity is named 2.1.3. So you are supposed to write a short paragraph on each of the following:

1. Endod as a pesticide
2. the lesson you learned from Dr. Aklilu Lemma
3. Local herbs. you are supposed to ask someone or your friend who knows about the herb medicines and write a) what it is b) what it cures c) the process of its preparation, and the lesson you learnt about the local medicine, and d) what measures you would take about it in future (taking Dr. Aklilu as a model)?

Wendu: I wrote all the questions here, and I need you to select one, which is more convenient to you and write the paragraph. The topic must be common for you all. Here are the writing sections that we are supposed to entertain in the classroom. You need to write a short paragraph, which is talking about at least 'Endod as a pesticide', 'the lesson you learned from Dr. Aklilu'. I hope you read about Dr. Aklilu in this unit that we practiced before. And 'the local herb' that you know. You, with your friend, need to discuss together, and through answering these questions, you need to share ideas together and I need you to write in the form of a paragraph.

Wendu: so 'Endod as a pesticide' what pesticide is? What is a pesticide? You know Endod? Anyone who does not know about Endod? It is a plant. Is it not? It is a plant, which frequently grows near rivers. It is used to wash clothes. A green plant. Is it not? So it is used as a pesticide. If you remember the text, which talks about here in unit two which is 'Grassroots attacks on Bilharzia', this text is totally talking about 'Endod': its use, its application that was done by Dr. Aklilu. You read this text.

At 4:10 pm- the instructor assigned a writing activity and gave them different examples. He later instructed the students to generate ideas in pairs and develop a paragraph individually. The students were asked to interview their friend about a local herb they

Journal of English Language Studies
Available online at https://jurnal.untirta.ac.id/index.php/JELS
P-ISSN 2527-7022 and E-ISSN: 2541-5131
Journal of English Language Studies, 8(2), 232-248; 2023

selected individually and then they write their own paragraph using the information they generated.

Wendu: hopefully question number 3 is more important to you to write a good paragraph because it gives you exposure to generate various ideas. In fact, we will practice these [*indicating the other activities*] when we have time, but for now, I need you to write about a topic that is talking about local herbs. You need to think about any kinds of herbs that you know in your local area. I will give you at least five minutes to discuss in pair about the local herb that you know in your homeland in the place where you came from; you need to ask each other. You need to ask your friends who sat next to you to tell you about any kinds of local herbs that he/she knows. What is the local herb that you know? For example, we know locally 'haregresa' and you know 'Eucalyptus globulus' or 'Nech bahirzaf'. It is an herb. Is it not? And what else?

A Student 1 [female]: Damakese

Wendu: 'Damakese' very good. You know what 'Damakese' is.

A student 2 [female]: Koso

Wendu: 'Koso'. You know what 'Koso' is. So, you need to discuss with your friend about any kinds of local herb, and then you need to take one. The process of its preparation *[how it is prepared*]. Most of the time when we take in the form of medicine, how is it prepared? For example, how Koso is prepared? How 'haregresa' is prepared to treat kinds of illness? And again the lesson you learned about the local medicine. What lesson have you learned? What measures would you take about it in the future? What kind of measures would be taken? For example, if you identify 'Haregresa', how is it prepared? What kind of measures could be used publically or officially? How it could be used? For example, when we think about 'Endod', we know Endod is a plant, which is used to wash a cloth. We did not know whether it cures Bilharzia. We knew it after the discovery of Dr. Aklilu. Is it not? So what kinds of measures would be taken to cure or to make it advance to do something better as a medicine?

Journal of English Language Studies
Available online at https://jurnal.untirta.ac.id/index.php/JELS
P-ISSN 2527-7022 and E-ISSN: 2541-5131
Journal of English Language Studies, 8(2), 232-248; 2023

Wendu: so I need you to discuss in pair about any kinds of local medicine. Maybe you can consider the medicine that we raised before- like the three medicines 'haregresa', 'Eucalyptus globulus', and the like. And then how it is prepared, what kinds of measures should be taken, maybe to be used as a medicine. You can consider the work of Dr. Aklilu Lema as a model. So, this is what I need you to do for today's class.

Wendu: so, I want to give you time to identify any kinds of local herb including the herb that we mentioned before and I need you to generate ideas related to these questions [b and c]. Then finally after you generate or collect ideas from your peer, you are supposed to write a paragraph. So go on.

[*students began arranging their chairs to sit in pairs*]

Wendu: do not look at your smartphones unless you read the module. The questions are there. The issues were already explained. So, now discuss and take out your own note outlines. It helps you to write a well-organized paragraph. Discuss and jot down points that you need to include in your paragraph.

Wendu: [*he began observing what the students were doing*] Do not you have a notebook? You can use that paper. It is an individual work. After you discuss, you need to write individually. You can take one local herb may be 'haregresa', maybe 'Eucalyptus globulus' may be as you said 'koso' any kind that you know in your homeland, which is used as a local herb.

A Student 1 [male]: do we take one?

Wendu: yes you take only one.

A Student 2 [male]: what do I share with my friend?

Wendu: how it would be worked for as a modern medicine. For example, when we think about 'Endod' at the beginning, we never thought it could be used as a medication. We only knew its purpose for washing clothes. When the insects near rivers were found dead, then it was suspected that this happened due to this plant so that Dr. Aklilu Lema

Journal of English Language Studies
Available online at https://jurnal.untirta.ac.id/index.php/JELS
P-ISSN 2527-7022 and E-ISSN: 2541-5131
Journal of English Language Studies, 8(2), 232-248; 2023

investigated and found its medication. So what are other local herbs which are used as medicines in your local areas?

[*the instructor kept clarifying the activity to the students. The students were discussing in pairs*]

Wendu: finally you need to do it alone. You need to write your own paragraph. Now you can share ideas. After sharing ideas, you have your own views. Is it not? It is not a group work. You write your own with your own words, your expressions.

Wendu: if anyone has finished, put up your hand and I will check your work. [*asking students which local herb they chose*]. What local herb did you choose?

A Student 3 [female]: 'tenadam'

Wendu: good. And you?

A student 4 [female]: 'damakese'

Wendu: good.

At 4:45 pm- the instructor began reading and commenting on the students' paragraphs. He gave a chance to a few students to read what they wrote to the whole class. Before closing the session, he assigned a writing activity as a homework.

Wendu: Tamirat [*the pseudonym of a student*] wrote about 'mencherer'. He will share with you what it is. [*some students laugh while hearing the name of the herb*].

Wendu: Girum [*the pseudonym of a student*] wrote about 'Haregresa'. There is an issue that is very common in local areas, how it really works. Especially 'haregresa' is used for which we call locally 'mich'. If the person is highly affected by the disease, the color of the leaf would be changed to red. Ok good. I got many points from his paragraph [*after he quickly read Girum's paragraph*].

Wendu: is it different from 'Haregresa'? [*he asked one of the students while reading her paragraph*]

Journal of English Language Studies
Available online at https://jurnal.untirta.ac.id/index.php/JELS
P-ISSN 2527-7022 and E-ISSN: 2541-5131
Journal of English Language Studies, 8(2), 232-248; 2023

A student 5 [female]: [*gave the explanation about her paragraph*] The leaf is different. Haregresa grows sliding its steams on other plants or on fences, but this one grows under big trees. And it is taken by mixing the leaf with butter. If the person is affected, the color of the leaf turned into pink.

Wendu: good. Any other? [*he read one of the students' paragraph*s]. I think it is little. You need to add more information concerning the points we have been mentioning. Anyone? If you have finished. If you cannot finish here in the class, let me give you an additional home take assignment on this. You need to take all the information we have discussed here on what you wrote here today. In addition to this one, I need you to write on this one. Choose one from these either 'Endod as a pesticide' or 'the lesson you learned from Dr Aklilu Lema' from the text that you read before and I need you to write a paragraph.

Wendu: if anyone who has finished I can look. [*one of the students gave him her paragraph*] I hope from the paragraphs that I have read before, her paragraph gives me sense and I like it. I need her to read it to you, and you write in the way she wrote.

A student [Biruktawit]: 'Local herbs'. *Our country Ethiopia is rich by natural resources. From those resources local herbs is one of them. There are many types of plants because Ethiopia have different climate type. We have various climate so we have various types of plants. From those plants many of them are herbal plants. From those plants haregresa, damakese, tenadam, koso, nech bahirzaf, kebericho, endod and so on. Koso is one of our local herbal plants. It is used to treat 'yekoso til'. This disease is caused by being eat a raw meat. When we used this plant, it have its own procedure. When we wants to use it first we collect the leaf of the 'koso' trees then we dry it in the sun then we grind it by 'mukecha' or machine or anything else. After then we dissolve it by water. Now it is ready to drink. We must drink it fastly because it is strong to drink it, but it have bad smell and taste. It is effective but it have its own side effect*.

Wendu: good. What makes me impressed and what makes her paragraph unique is the way she began her paragraph. She starts with the general herbs which are found in Ethiopia and she is trying to inform us Ethiopia is rich in local herbs. Of those herbs, Koso is one. As

Journal of English Language Studies
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P-ISSN 2527-7022 and E-ISSN: 2541-5131
Journal of English Language Studies, 8(2), 232-248; 2023

much as possible your paragraph must have at least an introductory sentence, which could be catchy enough for your readers and again you need to include all the details as much as possible through reading or sharing ideas with your friends. And technically what I need to comment on your work is very elementary grammar [*he addressed her*]. If you say 'various' and 'there is'. I hope 'various + noun + there are' is more appropriate, and again 'it have' which is very elementary for you. It is better to say 'it has' and 'it is an effect'. It is something to say 'it has an effect'. So, these are grammatical problems that I need to comment on you, but the way that you began your paragraph is lovely. When you write your paragraph about this topic, you need to have at least an introductory sentence, you need to have sufficient details, and again concluding sentence [*addressing the whole class*].

Wendu: so chose one from these, and I need you to write a paragraph for the coming class, and it has its own value. I will give value to it. You are supposed to submit it on a piece of paper.

At 5:00 pm class end.

Appendix I: A Sample of Pre-Observation Interview (POI)

Tilahun's Transcript

Journal of English Language Studies
Available online at https://jurnal.untirta.ac.id/index.php/JELS
P-ISSN 2527-7022 and E-ISSN: 2541-5131
Journal of English Language Studies, 8(2), 232-248; 2023

Day Three

Friday, 3/02/23

Interview Area: office

Researcher: thank you very much for your cooperation. What is your plan for today? I mean what contents or activity are you going to give to students?

Tilahun: as you know the lesson we conduct at the level of our university is a module based. In the module, there is a writing section where students are required to write. Mainly the reading part is about cultural heritage. As a result of reading this, and working on some comprehension questions, they will be required to write on cultural heritage, particularly concerning their experiences or knowledge. Bringing all the ideas that they gained from the reading passage, they are expected to adapt to their real-life situation and finally, they will be required to write an essay. Therefore my plan is I would like to tell them what culture is, and heritage is. This is not a direct lecture system because they have got some ideas from the passage, we will do this in a Socratic method- in a questioning and answering system. Finally, if there is some confusion, I will try to clarify it. Finally, I will also try to brainstorm the students' ideas about the essay and then I will try to give them some hints to refresh their memory. They have learned about writing an essay and paragraphs. But, I will attempt to help them refresh their memory and I will give them some hints about what they should do, and the steps they should follow to write an essay. Finally, there are topics that are already given in the module and I will give them a chance to choose one of the three topics given in the module and they will automatically write. That is how I am going to deal with the writing session today.

Researcher: how relevant is the lesson that you are going to deliver and the activity in giving the chance to students to think critically?

Tilahun: as you know, the topic of the passage- cultural heritage- brought some ideas from various corners or from different perspectives. The writer attempted to bring different ideas from different areas and then incorporated them into the passage. Therefore particularly when students attempt to write what they think about cultural heritage, they

Journal of English Language Studies
Available online at https://jurnal.untirta.ac.id/index.php/JELS
P-ISSN 2527-7022 and E-ISSN: 2541-5131
Journal of English Language Studies, 8(2), 232-248; 2023

adapt what they got from the reading session to our real situation or their experiences, which they know about culture in their surroundings. This requires CT ability because they create an association by bringing things from different writings and trying to adapt to what is going on in our situation. Culture varies from society to society. Culture is simply nothing, but social experiences that have been already taken as something good for society. Therefore, they just try to see what culture means in different societies, and then bring that and try to associate with what is going on in the real situation of the students' society and therefore this I think requires CT. You cannot simply bring and assimilate or simply bring something and mix it with what is going on here. As I have told you, there are values in society and different societies have different values. What is good for a certain society may not be good for others; therefore, bringing these into a related and organized view and writing something needs CT. Therefore, I will try to supervise how they are associating this, and how they are writing an essay. I check whether the essay is organized in a way that I have already given them as a hint. I just roam about the classroom and try to see and even I may try to pose questions based on their writings and by this, I will try to facilitate their writing.

Researcher: from what you have said now, do you believe that the integration of reading skills with writing skills may expose students to thinking critically?

Tilahun: that is what I am just telling you. Definitely! When they read something, and then attempt to write based on what they read, there is a mental process going on in their mind, and this is a sign of CT. They cannot simply bring what they read and then write as it is by directly taking the ideas they gained from the reading material. Therefore, all these things will enhance their CT power. That is why we say reading and writing are two parallel-going skills; therefore, I expect that the relationship between these will be used as input to develop the CT power of the students. That is my belief.

Researcher: how are you going to allow students to write the essay? Do you allow them to write individually or in groups or pairs?

Journal of English Language Studies
Available online at https://jurnal.untirta.ac.id/index.php/JELS
P-ISSN 2527-7022 and E-ISSN: 2541-5131
Journal of English Language Studies, 8(2), 232-248; 2023

Tilahun: to me, the module requires students to write individually. Therefore, it is better because when something is designed in the syllabus, there are objectives to be attained. Hence, depending on the requirement of the passage, I will just proceed on giving them to do as classwork. So, it is individual and I will ask them to write individually. Because you know the problem is if you just give something as group work, some students will be active and the others will be idle. Though group work will enhance cooperative learning, and is supported, there are also some side effects. Therefore, to avoid this, it is better to give them individual chances to write so that they can at least try to see things independently. And students I hope will come from different corners of our country and they may come from different cultural situations. Therefore, they bring that into what they gained from the passage, and then immediately they will try to write it. Therefore, I prefer that individual work will be good to help them enhance their CT power.

Researcher: you told me that students write an essay. On what points are you going to focus? What are the criteria that you want students to focus on or to incorporate in their essays?

Tilahun: in their essay, one thing which I would like to implant in their mind is about what an essay is. I want them to know what an essay means and how is an essay written. By this I mean, what are the important parts of an essay? How do they design the introductory paragraph? How many paragraphs are commonly accepted to build an essay? and finally, how do they just follow the procedures for writing an essay? For instance, there is thinking time, brainstorming time, and then there will be a draft activity. How do they draft? How do they just bring their ideas as they come to their mind and write them? And finally, how do they try to review and edit? And how do they attempt to make their essay interesting? Therefore, how are they following these procedures? How do they just attempt to write an essay coherently? I will focus on all these things. It is not the type of essay that matters. The essays that they write vary. It may be narrative, expository, descriptive, or whatever. However, the major focus that I would take into consideration will be whether they are capable of organizing an essay in the best

Journal of English Language Studies
Available online at https://jurnal.untirta.ac.id/index.php/JELS
P-ISSN 2527-7022 and E-ISSN: 2541-5131
Journal of English Language Studies, 8(2), 232-248; 2023

possible way. Do they know what an essay is? And how they should at least think, plan, write, edit, and finally publish. I will try to see all these things.

Researcher: what is your rationale behind giving the chance to students to select one of the topics?

Tilahun: I will leave that to them. It should be based on their preference. Students will critically think about the issue and write better if they know the topic very well. The knowledge they have on the various issues will vary. Therefore, restricting students to write on a given topic may be indifferent to them. It may not be that much interesting. Therefore, among these three choices, they chose one based on their interest and their knowledge. To write something, you have to have something in your mind. Therefore, I will just give this to them so that they can at least see which one is better for them.

Researcher: thank you.

Tilahun: you are welcome.

Journal of English Language Studies
Available online at https://jurnal.untirta.ac.id/index.php/JELS
P-ISSN 2527-7022 and E-ISSN: 2541-5131
Journal of English Language Studies, 8(2), 232-248; 2023

Appendix J: A Sample of Stimulated Recall Interview (SRI)

Elsabet's Transcript

Day three

Wednesday, 18/1/23

Interview area: ELIC

Researcher: Thank you very much for your cooperation. How was the lesson?

Elsabet: it was somehow good. My students tried to write a well-organized paragraph as compared to the previous writing classes. This one is better in my opinion because, in the previous writing classes, they were exposed to writing paragraphs. So, I think this was good as compared to the previous writing class.

Researcher: I have interviewed you about your plan. What challenges have you faced that hindered you not to implement as you have planned?

Elsabet: I think there was no challenge in today's class. I did not face a challenge. Students were doing what they ordered. So, I did not face any challenges.

Researcher: how suitable was the topic? You gave them a topic to write a paragraph about 'global warming- the causes and the solutions. So, how was the topic? Was it suitable for students to write a paragraph?

Journal of English Language Studies
Available online at https://jurnal.untirta.ac.id/index.php/JELS
P-ISSN 2527-7022 and E-ISSN: 2541-5131
Journal of English Language Studies, 8(2), 232-248; 2023

Elsabet: the topic was suitable because my students are familiar with global warming. So, it was very easy for them to generate ideas. As a writer, before you start writing, you need to gather information/ideas and you need to read different materials. Otherwise, it will be difficult. So, the topic was suitable because my students had information regarding global warming because, at the beginning of the unit, they read a passage. From that passage, they gained information, and from their group discussion with their peers, they also gained information. So, it was suitable.

Researcher: tell me about its suitability in terms of creating exposure for students to think critically.

Elsabet: in my opinion, the topic creates exposure for students to think critically because writing by its nature requires thinking. So, students need to think critically starting from the first phase to the end. From idea generation then they organize their ideas, evaluate their idea, and then they synthesize those ideas appropriately. So, in my opinion, the topic enabled my students to think critically.

Researcher: do you believe that students may get the chance to think critically when they write on a topic that is familiar to them or which is new to them?

Elsabet: I think when the topic is familiar, it gives them the chance to think critically because ordering them to write a paragraph on a topic they do not know might be difficult. The first thing in writing is idea generation. If they know the topic, it will be easy for them to generate as many ideas as possible. But, the point is, whether their argument to support their position is convincing or not. So, if the topic is familiar, it enables them to think critically because they have to support their position using convincing arguments. So, I think students need to be given the chance to write paragraphs on familiar topics because ordering them to write a paragraph on an unfamiliar topic may discourage them. So, we have to start from the familiar topic and then we will proceed to the unfamiliar one.

Researcher: I have observed that you were reading students' paragraphs. What signs have you observed from students' paragraphs that may indicate their critical thinking?

Journal of English Language Studies
Available online at https://jurnal.untirta.ac.id/index.php/JELS
P-ISSN 2527-7022 and E-ISSN: 2541-5131
Journal of English Language Studies, 8(2), 232-248; 2023

Elsabet: some of the students have written well-organized paragraphs. They tried to organize their ideas logically and their supporting details were written concerning their topic sentence. And their arguments were convincing. So, the way they organized the arguments they wrote indicated to me my students were using their CT ability.

Researcher: at the beginning of the lesson, you allowed students to have group discussions for the sake of brainstorming ideas. So, how did you find this method in terms of enhancing students' CT skills?

Elsabet: I think group discussion or letting students discuss in a group is very essential strategy because students learn or students get different kinds of insights from their peers. Two people may not see things similarly. They may see it from a different perspective. So, in my today's class, I used group discussion. The main purpose of this group discussion was to help my students to brainstorm ideas. They exchange ideas with their peers, and it was fruitful because my students were exchanging ideas and they learned different things from their peers about the topic. So, I think it was useful, and essential, especially in enhancing my students' CT skills.

Researcher: what strengths and weaknesses have you observed from the students' paragraphs? I mean you compare and contrast the weakness that you have observed from the previous writing sessions and the strengths as well.

Elsabet: by the way I observed good progress in my students' writing ability. They even tried to write their ideas in paragraph form even if there were grammatical, spelling, and punctuation errors. They were progressing. Let me mention the strengths of their paragraph. Compared to the previous writing classes, they tried to generate better arguments and the organization of the paragraph was good and they tried to express ideas clearly. These are some of the strengths. The weakness I observed as a gap was the majority of my students did not know the constituent elements of a sentence. So, their sentences were incomplete or fragments. Some students could not write a word. They were simply sitting idly. These were some of the weaknesses.

Journal of English Language Studies
Available online at https://jurnal.untirta.ac.id/index.php/JELS
P-ISSN 2527-7022 and E-ISSN: 2541-5131
Journal of English Language Studies, 8(2), 232-248; 2023

Researcher: what about your evaluation in terms of their CT skills as compared to the previous sessions?

Elsabet: as compared to the previous writing classes, there were improvements related to their CT skill. I remember in their first writing class it was very difficult for them even to jot down ideas. But in my today's section, students tried to generate as many ideas as possible, and generating ideas was not sufficient. Some of their points were convincing. They were logically organized, and even some students improved, for example, punctuation problems. In the first writing class, they wrote five or six sentences as one sentence. Their paragraph was full of run-ons. I told them to indicate the break between or among sentences. So, in my today's class, some of the students did not make the aforementioned mistakes. So, in general, I observed improvements.

Researcher: you also instructed students to self-reflect on their paragraphs before they write their final paragraph. What is your belief concerning self-reflection?

Elsabet: self-reflection is very important because it will make our students independent. Instead of telling them their mistakes, telling them to self-edit their pieces of writing, and identify their weaknesses and strengths is very essential. So, students need to practice self-editing because it is very indispensable. This paves the way to learn independently. So, self-editing will improve their CT skills because when they re-read their paragraph, they will identify their problems in terms of content, organization, spelling, grammar, and the like. By the way, the ultimate goal of teaching is to create independent learners. So, this self-editing will make my students to be independent learners. So, I think it is valuable.

Researcher: thank you.

Elsabet: you are welcome.

Journal of English Language Studies
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P-ISSN 2527-7022 and E-ISSN: 2541-5131
Journal of English Language Studies, 8(2), 232-248; 2023

Appendix K: A Sample of Interview Transcript

Natnael's Interview Transcript

Date: Thursday, 9/2/23

Place: Office

Interview Length: 1:21 hours

Researcher: what do you think about the relevance of learning/teaching writing skills to university students?

Natnael: University students, after a certain time, are expected to be part of the world. We expect students to cope up with the external situation not only in the university. So, if students are educated to be good at communicating, one of the ways of communication is writing. So, I do believe that students need to learn writing very well because as I

Journal of English Language Studies
Available online at https://jurnal.untirta.ac.id/index.php/JELS
P-ISSN 2527-7022 and E-ISSN: 2541-5131
Journal of English Language Studies, 8(2), 232-248; 2023

have already mentioned, there is communication outside the world- the oral and written. So, if they have good writing skills, they can communicate what they want. They can express their feeling in writing not only in speaking. I do believe students, particularly university students, need to be good at writing skills because having good writing skills is fundamental for their future careers. In their actual learning, they might be expected to do various assignments related to the course they are taking. They need to develop certain materials. There might be assignments, or when we take students particularly who are attending a laboratory, they are expected to write laboratory reports. So, if students have good writing skills, they can report what they did in a laboratory using the writing skills they do have. When they become a graduate class, they are expected to develop an essay. So, if they are good at writing, I do believe they will produce a good paper because most of their final stages are highly related to writing assignments or writing activities. So, as a teacher of English, I do believe students need to have good writing skills because it has great value for their career or their study particularly.

Researcher: so if you believe that writing has different relevancies for university students, how do you perceive the relevancies of CT promotion in writing classes in university?

Natnael: if we expect students to be good writers, they need to be critical thinkers. So, if they are a critical thinker, as you know writing skill has some sort of steps that you need to follow when developing a certain material. If you gave a student a specific topic, he/she might not write directly. They need to first brainstorm or think. They need to follow some stages that give or allow them to produce material that can be readable/ understandable by others. Unless they become a critical thinker, the material they produce might not be valuable. It might not be as good as we are expecting from university students. University students are students who are on the verge of taking part in the global market. So, if we are assisting them to be critical thinkers, they can produce good material. That material helps us to know their level of thinking, their level of organization, and their level of reading and proofreading. So, critical thinking is mandatory, and we need to help them to be in such a manner.

Journal of English Language Studies
Available online at https://jurnal.untirta.ac.id/index.php/JELS
P-ISSN 2527-7022 and E-ISSN: 2541-5131
Journal of English Language Studies, 8(2), 232-248; 2023

Researcher: what do you think about the concept of CT? What comes to your mind when you hear the term CT?

Natnael: critical thinking is a kind of skill or ability to think things in a good way or a very developed kind of thinking. Critical thinking means looking at things in-depth or in a wider manner, or having a different outlook. So, I say a student is a good critical thinker if that student can see things in a very different manner, and look at that thing in-depth, and in a broader way.

Researcher: what elements do you think CT might incorporate?

Natnael: evaluation, analysis, and synthesis are there. The other elements I consider are deep thinking, different outlooks, back-and-forth thinking concerning a certain topic, in-depth thinking, and open-mindedness, or looking at things in a very different way.

Researcher: what would you say about the possible mechanisms that are used to promote students' CT in writing classes?

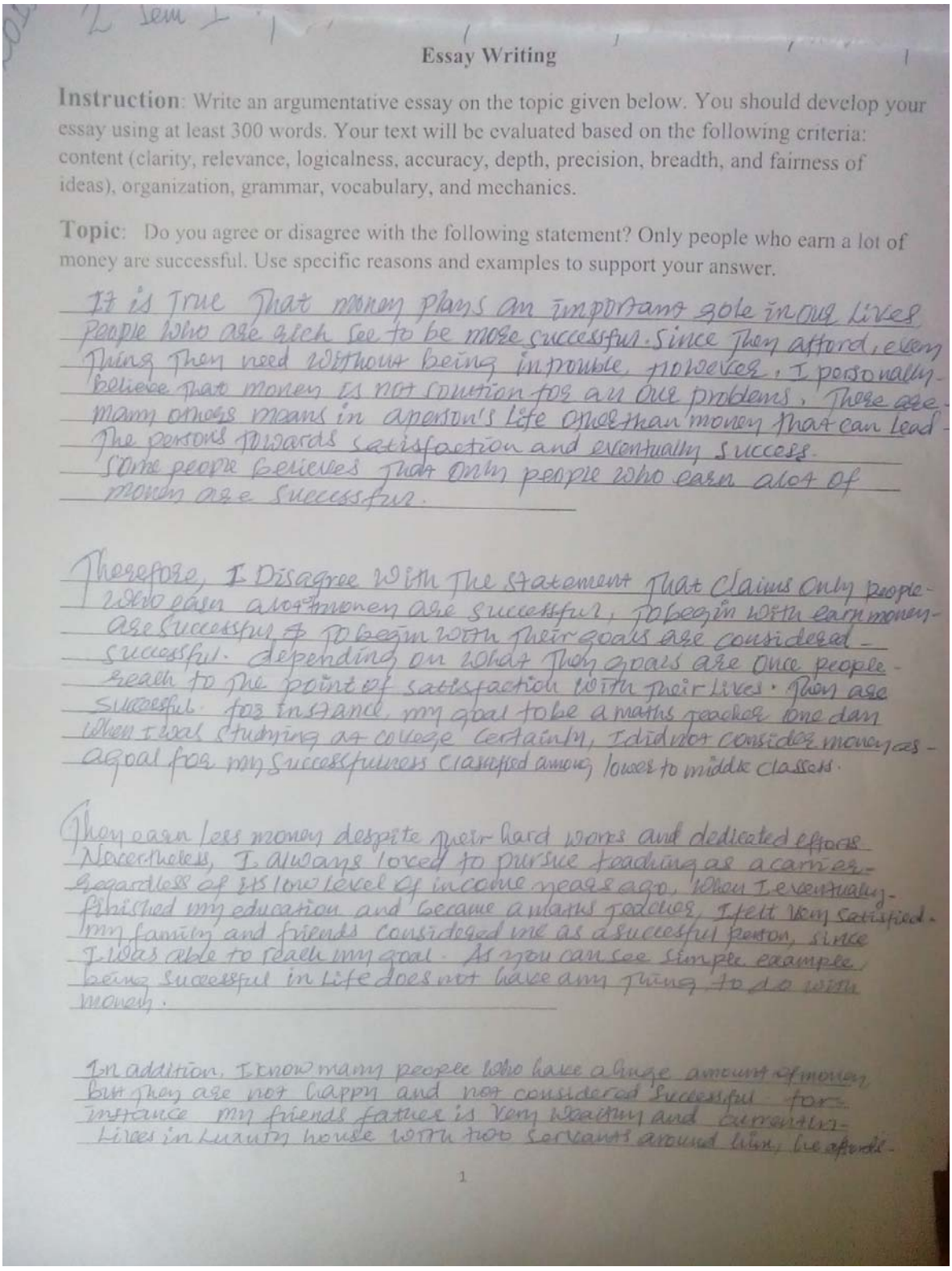
Natnael: the first thing we need to tell them is about what CT is. I do believe that we need to create contexts by giving a certain topic that helps them to enhance their CT. For example, you may bring up a topic that might not be familiar to them. After you allowed them to jot down certain points which they think are related to that topic, you need to ask them why they included the points. There have to be why and how questions which you are going to ask them to explain why and from where they get that information. So, context is the first thing that we need to create. Creating a kind of discussion that might be in a group, a pair, or a whole class kind of discussion might be one of the mechanisms that we need to follow. Reading by itself might also be the other mechanism that we need to use. Students have to read or refer to information, or find out certain materials which talk about a certain topic…

[*The interview Continued…*]

Journal of English Language Studies
Available online at https://jurnal.untirta.ac.id/index.php/JELS
P-ISSN 2527-7022 and E-ISSN: 2541-5131
Journal of English Language Studies, 8(2), 232-248; 2023

Appendix L: A Sample of students' Essay writing

Journal of English Language Studies
Available online at https://jurnal.untirta.ac.id/index.php/JELS
P-ISSN 2527-7022 and E-ISSN: 2541-5131
Journal of English Language Studies, 8(2), 232-248; 2023



Essay Writing

Instruction: Write an argumentative essay on the topic given below. You should develop your essay using at least 300 words. Your text will be evaluated based on the following criteria: content (clarity, relevance, logicalness, accuracy, depth, precision, breadth, and fairness of ideas), organization, grammar, vocabulary, and mechanics.

Topic: Do you agree or disagree with the following statement? Only people who earn a lot of money are successful. Use specific reasons and examples to support your answer.

It is true that money plays an important role in our lives people who are rich see to be more successful. since they afford, every thing they need without being in trouble. however, I personally believe that money is not solution for all our problems. There are many others means in a person's life other than money that can lead the persons towards satisfaction and eventually success.
Some people believes that only people who earn alot of money are successful.

Therefore, I Disagree with the statement that claims only people who earn alot money are successful. To begin with earn money are successful & to begin with their goals are considered successful. depending on what they goals are once people reach to the point of satisfaction with their lives. then are successful. for instance, my goal to be a maths teacher one day when I was studying at college certainly, I didn't consider money as a goal for my successfulness classified among lower to middle classes.

They earn less money despite their hard works and dedicated efforts Nevertheless, I always loved to pursue teaching as a carrier. Regardless of its low level of income years ago. When I eventually finished my education and became a maths teacher, I felt very satisfied. My family and friends considered me as a successful person, since I was able to reach my goal. As you can see simple example, being successful in life does not have any thing to do with money.

In addition, I know many people who have a huge amount of money, but they are not happy and not considered successful for instance my friends father is very wealthy and currently lives in luxury house with two servants around him, he afford.

1

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Available online at https://jurnal.untirta.ac.id/index.php/JELS

P-ISSN 2527-7022 and E-ISSN: 2541-5131

Journal of English Language Studies, 8(2), 232-248; 2023

The Promotion of Critical Thinking in Writing Classes: University Students' Perceptions and Critical Thinking Performance in Writing

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Article Info

Article history
Submission Date: 10 April 2023
Acceptance Date: 29 June 2023

Keywords:
Critical thinking; students' perception; instructors' practice; critical thinking; performance; writing classes.

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Abstract

Promoting students' critical thinking (CT) in writing classes gained attention in the education system following the requirement of students' CT ability in academic writing, particularly in higher education. The study sought to uncover how instructors promote students' CT in writing classes as perceived by university students and students' CT performance in writing. The participants were 330 first-year university students selected from Wolkite University using a stratified sampling technique. A questionnaire of Students' Perceptions of the Promotion of CT in Writing (SPPCTW) and essay writing were used to generate data. The data analysis included descriptive statistics, spearman rho correlation, and multiple regression. The findings revealed that instructors utilized some particular CT stimulating strategies. These included allowing students to work collaboratively, make arguments, and examine the role of different expressions, words, and ideas before writing. They allowed students to perform argumentative and expository writing activities through the process approach. Contrarily, the students reported limited chances to challenge instructors' perspectives, generate ideas from different sources, and do self-reflection. The result further indicated a positive and statistically significant relationship between the students' perceptions of instructors' promotion of CT in writing classes and students' CT performance in writing. Besides, the three factors (CI, IM, and NWA) had a statistically significant and positive impact on students' CT performance in writing. Yet, the impact of SFP was negative and not statistically significant. These findings could provide insights to different concerned bodies in the English language teaching field.

INTRODUCTION

Critical thinking dominated the education system following the increasing demand for learners equipped with CT ability in different sectors. Çavdar and Doe (2012) argued that learners equipped with CT make logical decisions by examining information from several perspectives. They synthesize ideas and systematically manipulate information proliferations. Corroborating this view, Azwati et al. (2022) asserted that CT surpasses providing quick and accurate responses to questions. It empowers the ability to process information reasonably, solve problems logically and scrutinize information credibility. Sari et al. (2018) added that CT supports learners to "evaluate evidence, assumptions, underlying logic, and language of other person's statement" (p. 547). CT is, therefore, pivotal to learners to efficiently undertake responsibilities in various areas by making analytical, evaluative, and logical decisions.

CT evolves into an inevitable ability in students' academic writing in higher education. Effective communication of meaning in writing cannot be attained through merely repeating language. It instead demands writers' CT ability to compose texts retaining the purpose through plausible reasoning, evidence, and conclusion (Nejmaoui, 2019). Matthews and Lally (2010) argued that "writing, thinking, and reasoning are inseparable. If students reach university, they will be expected to demonstrate critical thinking whenever they write academic essays or reports within their chosen discipline" (p. 137). Students, at the tertiary level, are supposed to produce high-quality writing products that involve logical and convincing views comprehensibly (Sari et al., 2018).

In the Ethiopian context, the English language has an indispensable role in the education sector, particularly at the tertiary level. It serves as the medium of instruction to deliver varied undergraduate and postgraduate courses (Bachore, 2015). Besides, it has become compulsory for first-year university students to attend two consecutive English language courses. Following this prominence of the language, students' endeavor to possess adequate writing ability becomes a requisite to their ongoing learning in universities. Academic learning in university requires students to spend most of their time composing complex written assignments (Crème & Lea, 2003). They accomplish different writing tasks such as essays, reports, term papers, reviews, and senior student projects (Tewodros, 2016). University instructors, however, complain about students' insufficient CT in their written papers. They mention the students' failure to logically relate ideas and provide justification with sufficient clarity, complexity, and

precision. Students' grammatical and mechanics problems became serious concerns (Ebabu, 2013; Tewodros, 2016).

Because of the decisive role of CT in students' academic learning, the initiative to promote students' CT earned emphasis in the Growth and Transformation Plan (GTP) 2010/15 in Ethiopia (Ministry of Education (MoE), 2011). This resulted in 'CT and logic' being designated as a compulsory course offered to first-year university students. Besides, the educational curriculums for universities advocate promoting students' CT using a learner-centered approach (MoE, 2018). Accordingly, university instructors attend in-service training focusing on reinforcing students' CT ability using a learner-centered approach (MoE, 2011). The instructors' classroom practices are, therefore, expected to adhere to the principles of the university curriculums.

Despite the curriculum principles, instructors' classroom decisions in using varied instructional strategies and activities impact students' CT in writing classes (Rodzalan & Saat, 2015). The effectiveness of instructors' decisions to promote students' CT is, however, determined by the students' perceptions of the instructors' practices (Ferreira & Santoso, 2008). Ferreira and Santoso (2008) argued that students employ a particular learning approach based on their perceptions of instructors' practices so that their performance gets impacted.

In this respect, An (2020) investigated East Asian students' perceptions of CT. The study revealed that students perceived their teachers implemented an indirect approach to stimulate students' CT. The strategies included offering feedback on written assignments, posing critical questions, and encouraging class discussions. Similarly, Setyorini (2018) explored students' perceptions and learning experiences of CT in writing class. The result indicated that writing lecturers trigger students' CT ability by explaining the material, giving writing assignments, and allowing students to analyze texts and do class discussions. In a different way, Du and Zhang (2022) associated students' performance and perceptions in a study about EFL learners' perceptions of CT learning affordances. The finding disclosed that the high achievers had better perceptions of the CT learning environment. These students benefited from the learning environments because of their better motivation, learner autonomy, and positive perceptions.

The aforementioned studies exclusively emphasized the students' perceptions of instructors' practices. Despite the inclusion of students' performance in Du and Zhang's study, the focus was on the impact of students' performance on their

perceptions. Consequently, this investigation on instructors' practices of promoting students' CT in writing classes as perceived by university students and students' CT performance in writing provides a noteworthy contribution. The study, therefore, responded to the following research questions:

1. How do university students perceive instructors' practices in promoting CT in writing classes?
2. What is the relationship between university students' perceptions of instructors' practices of promoting CT in writing classes and students' CT performance in writing?
3. Do instructors' practices of promoting students' CT in writing classes, as perceived by university students, predict students' CT performance in writing?

Practices of Promoting CT in Writing Classes

Instructors promote students' CT in writing classes using several mechanisms. Wilson (2019) argued that promoting CT is possible in a language class, which is "interactive, vibrant, authentic, explicit and scaffolded" (p. 14). Collaborative learning that embraces group discussion, peer feedback, and group work found an optimal strategy to reinforce CT in writing classes (Buranapatana, 2006; Dwee et al., 2016). Students practice CT by sharing ideas, comparing and contrasting perspectives, and generating and evaluating information in collaboration (Osborne et al., 2009). According to Buranapatana (2006), students acclimatize to mental strategies when their peers implement CT skills. They logically handle activities that require higher cognitive and reasoning skills when performing collaboratively (Daud, 2012).

Along with collaboration, questioning supports to promote students' CT. Fahim and Khatib (2013) asserted that "it is the duty of the teacher to implicitly ask students to attend to strategies of critical thinking and to evaluate each reasoning and argument on a multi-dimensional level before accepting it as correct" (p.82). A lecture that embraces questions stimulates students' ability to analyze, synthesize and evaluate information (Schafersman, 1991). Beyer (2001a, cited in Buranapatana, 2006) indicated the importance of questions that "call for sustained efforts to reason and to evaluate reasoning" (p.89). These questions, according to Beyer, require respondents to "clarify statements, define terms, and judge the relevance, accuracy, and nature of statements" (p.89).

Moreover, researchers (e.g., Dong, 2015; Mehta & Al-Mahrouqi, 2015) signified the importance of aligning reading with writing to promote students' CT. Mehta and

Al-Mahrouqi argued that writing fails to retain its purpose and credibility unless supported with a thorough reading. Such writings become subjugated by simple opinions, biases, prejudices, and myths. Thus, activities that include interpreting, analyzing, and evaluating reasoning, explaining the implied meaning in a text, and making inferences reinforce CT in writing classes (Case, 2004; Fahim & Eslamdoost, 2014). Intellectuals (e.g., Case, 2004; Çavdar & Doe, 2012) indicated several CT-stimulating writing tasks. These are summary writing, note-taking, and reflective writing; narrative, argumentative, persuasive, and opinion writing; and writing seminar papers.

Students' Perceptions of Instructors' Practices and Students' CT Performance

Students' psychological response to the instructors' practices ascertains the efficiency of instructors' practices in promoting students' CT. Perception is a cognitive process that facilitates the recognition and meaningful interpretation of sensory information concerning events in the physical environment (Jusnaeni, 2020; Putri, 2021). Scholars (Brok, 2001; Carter, 2021) explained that students possess perceptions of what they experience in the instructional situation. They examine and interpret the interactions with peers and teachers, the teaching practices, and the general classroom environment. This internal process of the surrounding events inversely impacts their manner (Kurniawan, 2015). Students' perceptions of the teaching practices influence their cognitive processing, motivation, or willingness to actively engage in the learning process, which ultimately impacts their performance (Carter, 2021; Kurniawan, 2015). Carter (2021), therefore, underscored instructors' responsibility to select helpful materials cautiously, employ various teaching methods, and create engaging environments.

METHOD

Research Design

A descriptive research design was employed. This design permits for describing students' perceptions of instructors' practices, determining the relationship between students' perceptions and their CT performance, and assessing the impact of students' perceptions on their CT performance (Marczyk et al., 2005).

Participants

The study was carried out at Wolkite University in Ethiopia. The university offers the Communicative English Language Skills II course to all first-year students. The course

incorporated writing lessons. The data was, therefore, collected from first-year students who took the course.

Table 1. Participants' Demographic Information

Streams	Gender		
	Male	**Female**	**Total**
Natural Science	95	42	137
Social Science	66	33	99
Pre Engineering	40	14	54
Pharmacy	24	16	40
Total	**225**	**105**	**330**

There were 2316 first-year students in the university in the 2021/22 academic year. For this study, 330 first-year students were selected using a 95% confidence level sampling strategy (Cohen et al., 2007). A stratified sampling technique accompanied by simple random sampling was employed to select the samples from four streams (see Table 1).

Instruments

Questionnaire

A questionnaire of Students' Perceptions of the Promotion of CT in Writing (SPPCTW) was employed to generate data. The tool incorporated 38 closed-ended items presented in four themes: classroom interaction, instructional mechanism, nature of writing activities, and system of feedback provision. The items were constructed with a 5-point Likert scale ranging from 'never' to 'always'. The questionnaire was designed based on scholarly works (Al-Kindi & AL-Mekhlafi, 2017; Chen, 2017; Kusaeri & Aditomo, 2019; Paul & Elder, 2002). It was pilot-tested, and Cronbach's alpha result (0.80) indicates high reliability (Cohen et al., 2007).

Measurement of Students' CT Performance in Writing

The students' CT performance in writing was assessed based on an essay they wrote on the topic '*Do you agree or disagree with the following statement? Grades (marks) encourage students to learn. Use specific reasons and examples to support your opinion'*. The topic was selected from IELTS (n.d.). The students' CT performance was evaluated using an 'Evaluation criteria for CT in writing' adapted from Dong (2015). The reliability of the tool by Dong (2015) produced high reliability (r=0.88). The rubric was further pilot-tested, and the result showed excellent reliability- 0.90 (Koo & Li, 2016).

Data Collection Procedure and Analysis

The authors obtained the students' consent to participate before the data collection began. The data collection followed the students' completion of studying the Communicative English Language Skills II course. This enabled them to describe instructors' practices throughout the writing sessions. The questionnaire was distributed to the students after they submitted the essay papers.

The data concerning the students' perceptions of the instructors' practices of promoting CT was examined using descriptive statistics (mean and standard deviation). The mean value was interpreted using Oxford's (1990) explanation of averages: high frequency (3.5-5.0), medium frequency (2.5-3.4), and low frequency (1.0-2.4). Spearman's rho was computed to investigate the relationship between students' perceptions and CT performance. Furthermore, multiple regression was employed to assess how the students' perceptions predict students' CT performance. The impact of the sub-scales of instructors' CT promotion- Classroom Interaction, Instructional Mechanism, Nature of Writing Activities, and System of Feedback Provision- on students' CT performance was investigated. The statistical test was processed using SPSS version 25.

RESULT

How do university students perceive instructors' practices in promoting CT in writing classes?

The descriptive analysis shows the mean and standard deviation of items that portray the frequency of classroom interaction, instructional mechanisms, writing activities, and feedback provision.

Classroom Interaction (CI)

The students perceived that the instructors entertained CT-stimulating classroom interaction at a medium frequency (M=2.61, SD=.51) during writing lessons (see Table 2).

Table 2. Descriptive Statistics-CI

No.	Item	*M*	*SD*
1	The instructor gives me a chance to share my opinion.	2.65	.77
2	The instructor encourages me to pose questions.	2.51	.91
3	He/she initiates me to make arguments related to a topic for writing	2.88	.77
4	He/she allows me to challenge his/her perspective about an issue.	2.29	.80
5	He/she focuses on asking questions than giving information.	2.67	.96
6	He/she encourages me to challenge other students' points of view.	2.79	.72
7	He/she gives me a chance to perform writing tasks collaboratively.	2.83	.72
8	The instructor initiates class discussions on topics for writing.	2.76	.98
9	He/she initiates me to be curious to validate my statements.	2.38	.89

10	He/she encourages me to handle opposing ideas on a particular topic.	2.34	.78
11	The instructor appreciates my responses (opinions, thoughts, etc).	2.62	.80
Classroom Interaction		**2.61**	**.51**

The implementations of some practices were at a medium frequency (items 1,2, 3,5,6,7,8,11), while the others were at a lower level (items 4,9,10). The result indicated that the practices in item 3 (M=2.88, SD=.77) and item 7 (M=2.83, SD= .72) were at an average frequency, yet better than the other practices. In contrast, the students perceived the instructors' practice in item 4 at a lower frequency than the others (M=2.29, SD=.80).

Instructional Mechanism (IM)

As depicted in Table 3, the participants perceived that the instructors employed CT-oriented instructional mechanisms at a medium frequency (M=2.93, SD=1.00). The instructors implemented all the specific practices under this theme at an average level.

Table 3. Descriptive Statistics-IM

No.	Item	*M*	*SD*
12	The instructor gives me time to generate ideas, write the first draft, revise, and write the final text.	3.15	1.28
13	The instructor presents sample text to let me analyze and evaluate ideas.	2.70	1.02
14	He/she encourages me **NOT** to worry about mechanics, vocabulary, and grammar until I have made my points.	2.62	.98
15	He/she helps me to be aware of the purpose of my writing when developing texts.	2.78	.96
16	He/she encourages me to examine the role of different expressions, words, and ideas when preparing to write.	3.22	1.30
17	He/she helps me to identify ideas in support of or against a particular point of view.	3.13	1.26
18	He/she encourages me to evaluate the relevance and credibility of information.	3.05	1.31
19	He/she encourages me to consider multiple perspectives/explanations related to a topic in my writing.	3.08	1.25
20	He/she suggests I include justified evidence and examples in my writing.	3.07	1.30
21	He/she helps me to include relevant and sufficient details in my writing.	3.11	1.30
22	He/she supports me to clarify ideas in my writing.	2.77	1.01
23	He/she allows me to generate information from various sources on a topic before starting to write.	2.65	.98
24	He/she gives me examples of how to develop ideas logically in writing.	2.73	.95
Instructional Mechanism		**2.93**	**1.00**

Among the others, the participants perceived the issue in item 16 (M=3.22, SD=1.30) to have a better frequency, though it is still at a medium range. However, the instructors' practice in item 14 (M=2.62, SD=.98) was relatively low.

Nature of Writing Activities (NWA)

The participants perceived that the instructors assigned CT-stimulating writing activities in writing classes at an average frequency (M=2.88, SD=1.07). As presented in Table 4, the writing activity in item 28(M=3.10, SD=1.25) had a better occurrence in writing classes followed by item 27 (M=3.08, SD=1.28).

Table 4. Descriptive Statistics-NWA

No.	Item	*M*	*SD*
25	The instructor suggests that I practice note-taking and summary writing.	2.52	1.05
26	The instructor allows me to do reflective writing activities.	3.02	1.27
27	He/she instructs me to do activities that demand comparing and contrasting issues.	3.08	1.28
28	He/she gives me activities that require me to identify ideas that support or contest a particular point of view.	3.10	1.25
29	He/she gives me writing activities that require including multiple points of view.	2.71	1.10
30	He/she assigns writing activities that demand me to include examples and evidence.	3.05	1.27
31	The instructor gives writing activities that require me to identify the cause and solution.	3.04	1.26
32	He/she asks me to do writing activities on the logical arrangement of ideas.	2.53	1.11
Nature of Writing Activities		**2.88**	**1.07**

Although they were still at the average level, the activities in item 25 (M=2.52, SD=1.05) and item 32 (M=2.53, SD=1.11) were relatively less frequent.

System of Feedback Provision (SFP)

The students perceived that the overall feedback provision system falls in a medium range (M=2.68, SD=.80), as implied in Table 5. The instructor feedback (item 33, M=3.05, SD=1.07) appeared more frequently than peer feedback (item 37, M=2.95, SD=1.13). Self-feedback/reflection was reported to occur less frequently (item 35, M=2.38, SD=.84).

Table 5. Descriptive Statistics-SFP

No.	Item	*M*	*SD*
33	The instructor gives me comments throughout the process of writing.	3.05	1.07
34	He/she provides feedback on the presentation of my idea (e.g., clarity, relevance, logicalness, accuracy, depth, precision, breadth, and fairness).	2.97	1.13
35	He/she provides me the opportunity to reflect on my writing.	2.38	.84
36	He/she assists me to self-reflect on my writing concerning the clarity, relevance, logicalness, accuracy, depth, precision, breadth, and fairness of ideas.	2.34	.76
37	He/she encourages me to comment on others' written texts.	2.95	1.13
38	He/she encourages me to comment on others' written texts concerning the clarity, relevance, logicalness, accuracy, depth, precision, breadth, and fairness of ideas.	2.41	.98
System of Feedback Provision		**2.68**	**.80**

Furthermore, the result indicated the instructors' focus on some relevant aspects of students' writing while providing feedback (item 34, M=2.97, SD=1.13). Contrarily, the students reported the instructors' low encouragement of students in providing peer feedback on some important issues (item 38, M=2.41, SD=.98).

What is the relationship between university students' perceptions of instructors' practices of promoting CT in writing classes and students' CT performance in writing?

The correlation was computed using Spearman's rho. Table 6 displayed the correlation between the general students' perception of instructors' CT promotion and its subscales with the students' CT performance.

Table 6. The Correlation Result

SPPCTW Scale	Students' CT Performance
Classroom Interaction (CI)	0.89**
Instructional Mechanism (IM)	0.67**
Nature of Writing Activities (NWA)	0.90**
System of Feedback Provision (SFP)	0.87**
General CT Promotion (GCTP)	0.93**

**. Correlation is significant at the 0.01 level (2-tailed).

As shown in Table 6, there was a positive relationship between the variables. This indicates that the increment in instructors' promotion of students' CT as perceived by students aligns with the increase in students' CT performance. The correlation coefficient of 0.67 indicates a strong correlation according to Muijs' (2004) description of effect size that considers a strong correlation for results ranging between +/-5 up to +/- 0.8. The other correlation results showed a very strong relationship since all are >0.8. Besides, the correlations were statistically significant ($p< 0.01$). This indicated that the instructors' promotion of students' CT as perceived by their students was related to students' CT performance in writing.

Do instructors' practices of promoting students' CT in writing classes, as perceived by university students, predict students' CT performance in writing?

The study specifically investigated the predictive power of students' perceptions of instructors' CT promotion scales (CI, IM, NWA, and SFP) in students' CT performance. The independent variables (CI, IM, NWA, and SFP) were hypothesized to predict the dependent variable (students' CT performance).

Table 7: The Multiple Regression Results

Hypotheses	B	Beta (β)	T	p-value	Results
H1 [CI→SCTP]	9.104	.337	7.371	.000*	Supported
H2 [IM→SCTP]	4.027	.291	7.905	.000*	Supported
H3 [NWA→SCTP]	5.822	.453	7.832	.000*	Supported
H4 [SFP→SCTP]	-1.103	-.064	-1.009	.314	Not supported
R^2	.833				
F(4,325)	403.890				

**p<0.05. SCTP: Students' Critical Thinking Performance*

As shown in Table 7, the independent variables significantly predicted students' CT performance, F(4,325) = 403.890, p<000, which indicated that the three factors (CI, IM, NWA) significantly impacted students' CT performance. Moreover, the R^2 = .833 depicted that the model explains 83.3% of the variance in students' CT performance. This illustrates a strong size effect of the model in creating a variation in the students' CT performance (Muijs, 2004).

The study examined the impact of each predictor on the students' CT performance. The results revealed statistically significant and positive impacts of the three factors on students' CT performance with CI (t=7.371,p<.000, β=.337), IM (t= 7.905, p<.000, β=.291) and NWA (t= 7.832, p<.000, β=.453). In contrast, the impact of SFP was negative and not statistically significant (t=-1.009, p=.314, β=-.064). Additionally, the positive slope for CI (B=9.104) indicated that there was about a 9.104 increase in students' CT performance for each 1-point increase in CI. One point increase in each IM and NWA resulted in an increment of students' CT performance of about 4.027 and 5.822, respectively. Contrarily, the negative slope for SFP (B=-1.103) indicated that students' CT performance goes down by1.10 as SFP rises by one.

DISCUSSION

The finding revealed that instructors employed some CT-promoting strategies at a relatively better frequency based on students' perceptions. For instance, giving chances to students to make arguments, do writing activities in collaboration, and examine the role of different expressions, words, and ideas before writing. The instructors encouraged them to perform activities related to argumentation and expository through a process approach to writing. Despite a better implementation of instructor feedback, the result indicated that the utilization of peer feedback was not entirely ignored.

The finding implies that students had the opportunity to exercise CT in writing classes to some extent. Different scholars (e.g., Buranapatana, 2006; Dwee et al., 2016; Wilson, 2019) asserted that working in collaboration benefits students to generate and examine various information and learn to demonstrate CT components while negotiating and reasoning out ideas together. Researchers (Dwee et al., 2016; Zhao et al., 2016), however, emphasized that the effectiveness of students' collaboration is maintained by the instructor's follow-up and students' enthusiastic involvement.

Besides, students might recognize alternative assumptions when making arguments on a topic for writing. The result corroborates the findings of some studies (e.g., An, 2020; Jusnaeni, 2020; Sadeghi et al., 2020) that revealed students' perceptions of having chances to work in groups and share their perspectives with peers.

Additionally, instructors' encouragement of students to do argumentative and expository writing activities following the process approach to writing exposes students to exercise CT. Intellectuals (Dwee et al., 2016; Rashtchi & Khoshnevisan, 2020) argued that students think critically by examining information and selecting the right idea when they are encouraged to outline, draft, and revise. Similarly, writing activities that require students to compare and contrast and argue on a particular perspective stimulate students' CT (Fahim et al., 2014; Schafersman, 1991). Additionally, researchers (Daud, 2012; Walker & Diaz, 2003) underlined the relevance of instructor feedback and peer feedback to promoting students' CT. Students interpret, analyze, evaluate, and recognize alternative ideas while performing peer feedback.

Contrarily, the finding indicated the prevalence of particular CT-promoting practices that the instructors utilized at a lower level. Students perceived that they were rarely permitted to challenge instructors' perspectives. Their response further showed a relatively lower frequency level regarding instructors' encouragement to **NOT** worry about mechanics, vocabulary, and grammar until they put the main points. In other words, students were highly expected to think about the basics of the language before constructing their main points in writing. Students reported receiving an inadequate chance to generate information from various sources before writing. In relatively less frequency, the instructors assigned students writing activities such as note-taking, summary writing, and logical arrangement of ideas. Moreover, the result indicated a low implementation of self-feedback/reflection.

Scholars (Rashtchi & Khoshnevisan, 2020; Wilson, 2019) explained the role of encouraging students to question ideas and to read different sources. They stated that students' exposure to scrutinizing instructors' perspectives stimulates students' ability to analyze, synthesize and evaluate assumptions instead of simply accepting them. Likewise, reading different sources before writing broadens students' understanding of the issue. Moreover, self-reflection and writing activities such as summary writing, note-taking, and logical arrangement of ideas enable students to think about their thinking and apply CT components (Case, 2004; Daud, 2012; Fahim et al., 2014).

The result further indicated a positive and significant relationship between students' perceptions of instructors' promotion of students' CT in writing class and students' CT performance in writing. This implies that the students' CT performance in writing improves as their perception of the instructors' practices of CT promotion increases and vice versa. Besides, the finding revealed statistically significant and positive impacts of the three factors (CI, IM, and NWA) on students' CT performance. In contrast, the impact of SFP on students' CT performance was negative and not statistically significant.

Findings about the relationship between student's perceptions of the teaching process and academic performance are inconclusive. Scholars (e.g., Atkins, 2018; Dart et al., 1999; McRobbie & Fraser, 1993) explained the relationship between student's perceptions of the learning environment and their academic achievement. They stated that students' perceptions of the teaching and learning process influence their motivation, engagement, and learning approach which inversely impacts their academic performance. Entwistle et al. (2002 cited in Ferreira & Santoso, 2008) asserted that students' learning outcome is more impacted by their perceptions of teaching than the teaching method used in the classroom. Contrary to the findings of this study, Carter's (2021) study revealed no relationship between the student's perceptions of the teaching process and their academic achievement. On the reverse, Du and Zhang's (2022) study showed a significant impact of students' academic performance on their perceptions of the CT learning environment. In other words, students' language proficiency determines their perceptions of a CT-nurturing learning environment.

CONCLUSION

The purpose of this study was to investigate how instructors promote students' CT in writing classes as perceived by students and students' CT performance in writing. The results indicated that instructors promote students' CT at an average level as perceived by students. This implies the students' exposure to thinking critically in writing classes, though it was inadequate due to the prevalence of some instructors' practices at a lower frequency level. For instance, the students' minimum opportunities to question the instructor's perspective and to generate information from various sources indicate students' tendency to accept ideas for granted instead of searching for alternatives. In addition, the study revealed a relatively lower implementation of

activities such as note-taking, summary writing, and logical arrangement of ideas. This denotes the absence of employing varieties of CT-stimulating writing activities. The low execution of self-reflection compared to instructor feedback shows instructors' dominance with little trust in students' ability to reflect on their work. The negative impact of students' perception of SFP on their CT performance can further imply the need to provide better reinforcement to students' self-reflection and peer feedback. Receiving a lot of instructor feedback might cause anxiety that reversely affects students' performance.

The findings of this study provide insights to different stakeholders in the domain of English language teaching. Instructors should examine their classroom decisions and thereby employ different teaching approaches and activities that create broader opportunities for students to exercise CT in writing classes. In doing so, instructors should be cognizant of the perceptions of their students about the overall events in the classroom. Such practices may contribute to the improvement of the teaching and learning process in general and students' CT abilities in particular. Similarly, teacher educators obtain an overview of instructors' practices in promoting students' CT. Hence, they consider some strategies while training prospective instructors. The findings, furthermore, inform material designers to include diverse CT-stimulating writing activities that extend students' opportunity to exercise CT in writing classes. Further studies can investigate the underlying factors that mediate the relationship between students' perceptions and performance, particularly concerning the promotion of CT in writing classes.

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Gist Education and Learning Research Journal. ISSN 1692-5777. No. 26 (January - June, 2023). pp. 123 - 154.

Exploring Instructors' Beliefs and Practices in Promoting Students' Critical Thinking Skills in Writing Classes[1]

Explorando las creencias y prácticas de los instructores para promover las habilidades de pensamiento crítico de los estudiantes en las clases de escritura

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Abstract

The growing requirement for students' robust critical thinking (CT) skills in their academic writing, particularly at the tertiary level, has augmented the attention to equipping students with CT ability. The study, therefore, sought to investigate instructors' beliefs and practices in promoting students' critical thinking (CT) in writing classes. A multiple case study design was employed to address the study objective. Three purposively selected instructors from Wolkite University participated. The data collection method involved classroom observation, interview, and document analysis. The analysis was performed qualitatively using a grounded theory approach- open, axial, and selective coding. The findings indicated that the participants interpreted CT as students' abilities to use appropriate language and logically argue in their writing. They explained some strategies used to promote students' CT skills. These included providing an explicit introduction to CT, incorporating CT into the evaluation system, scaffolding, and giving meaningful topics and adequate opportunities for students to practice writing. Writing activities such as argumentative, summary and cause-effect types were considered to promote students' CT in writing classes. The study categorized and reported factors that interfered with instructors' beliefs and practices as student-related, instructorrelated, and situation-specific factors. The findings contribute relevant insights into the English language teaching sphere.

Keywords: Critical thinking, instructors' beliefs, instructors' practices, students' critical thinking, writing skills

Resumen

La creciente necesidad de que los estudiantes tengan sólidas habilidades de pensamiento crítico (CT) en su escritura académica, particularmente en el nivel terciario, ha aumentado la atención para equipar a los estudiantes con habilidades CT. Por lo tanto, el estudio buscó investigar las creencias y prácticas de los profesores para promover el pensamiento crítico (CT) de los estudiantes en las clases de escritura. Se empleó un diseño de estudio de casos múltiples para abordar el objetivo del estudio. Participaron tres instructores intencionalmente seleccionados de la Universidad Wolkite. El método de recolección de datos implicó observación en el aula, entrevista y análisis de documentos. El análisis se realizó cualitativamente utilizando un enfoque de teoría fundamentada: codificación abierta, axial y selectiva. Los hallazgos indicaron que los participantes interpretaron la PC como la capacidad de los

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estudiantes para usar un lenguaje apropiado y argumentar lógicamente en sus escritos. Explicaron algunas estrategias utilizadas para promover las habilidades CT de los estudiantes. Estas incluyeron proporcionar una introducción explícita a la CT, incorporar la CT en el sistema de evaluación, crear andamios y brindar temas significativos y oportunidades adecuadas para que los estudiantes practiquen la escritura. Se consideraron actividades de escritura de tipo argumentativo, resumido y causaefecto para promover la PC de los estudiantes en las clases de escritura. El estudio categorizó e informó los factores que interferían con las creencias y prácticas de los instructores como factores relacionados con los estudiantes, relacionados con los instructores y específicos de la situación. Los hallazgos aportan conocimientos relevantes sobre el ámbito de la enseñanza del idioma inglés.

Palabras claves: Pensamiento crítico, creencias de los profesores, prácticas de los profesores, pensamiento crítico de los estudiantes, habilidades de escritura.

Resumo

A crescente necessidade de habilidades robustas de pensamento crítico (PC) dos alunos em sua escrita acadêmica, especialmente no nível superior, tem aumentado a atenção para capacitar os alunos com habilidades de PC. O estudo buscou investigar, portanto, as crenças e práticas dos instrutores na promoção do pensamento crítico (PC) dos alunos em aulas de escrita. Foi empregado um design de estudo de caso múltiplo para abordar o objetivo do estudo. Três instrutores selecionados propositadamente da Universidade de Wolkite participaram. O método de coleta de dados envolveu observação de sala de aula, entrevista e análise de documentos. A análise foi realizada qualitativamente usando uma abordagem de teoria fundamentada - codificação aberta, axial e seletiva. Os resultados indicaram que os participantes interpretaram o PC como as habilidades dos alunos de usar linguagem apropriada e argumentar logicamente em sua escrita. Eles explicaram algumas estratégias usadas para promover as habilidades de PC dos alunos. Estas incluíram fornecer uma introdução explícita ao PC, incorporar o PC no sistema de avaliação, andamento gradual e oferecer **tópicos significativos e oportunidades** adequadas para os alunos praticarem a escrita. Atividades de escrita, como tipos argumentativos, sumário e causa-efeito, foram consideradas para promover o PC dos alunos em aulas de escrita. O estudo categorizou e relatou fatores que interferiram nas crenças e práticas dos instrutores como relacionados aos alunos, aos instrutores e a situações específicas. Os resultados contribuem com insights relevantes para a esfera do ensino da língua inglesa.

Palavras-chave: Pensamento crítico, crenças dos instrutores, práticas dos instrutores, pensamento crítico dos alunos, habilidades de escrita.

Introduction

Producing learners equipped with CT ability and who can function in this ever-changing and complex world evolved into an eminent concern of numerous scholars (e.g., Buskist & Irons, 2008; Paul & Elder, 2002;Schafersman, 1991; Vallis, 2010). Learners, who have the ability to question perspectives, recognize alternative points of view, make decisions/judgments, and solve problems, are demanded in today's workforce. The standards in the market require learners to handle the proliferation of information and to carefully weigh available evidence (Buskist & Irons, 2008; Halpern, 2003). Çavdar and Doe (2012) posited that critical thinkers have the ability to make better decisions by analyzing, evaluating, and synthesizing existing information on a particular issue. The efficient application of CT ability has, therefore, become a foundation for competently undertaking responsibilities in the contemporary world.

Regardless of its relevance, the interpretation of CT is elusive. Scholars in different disciplines attempted to define it. For instance, in the discipline of philosophy, Facione (1990) described CT as a "purposeful, self-regulatory judgment which results in interpretation, analysis, evaluation, and inference, as well as an explanation of the evidential, conceptual, methodological, criteriological, or conceptual considerations upon which that judgment is based" (p. 3). Facione links CT with the ability to make a judgment by operating the specific CT components. In the context of writing skill, Dong (2015) defined CT as "a mindful application of a structured mode of thinking which aims to improve the quality of thinking to achieve intellectual standards of excellence in L2 written communication" (p. 25). CT is depicted as the ability to exhibit refined thinking in writing.

Despite variations in defining CT, scholars agree on the intimate relationship between CT and writing. According to Paul and Elder (2002), "disciplined writing requires disciplined thinking; disciplined thinking is achieved through disciplined writing" (p. 376). This view echoes the demonstration of CT through writing and the relevance of CT to composing a substantiated text that meets the intended purpose. Advocating writing as a mechanism to stimulate CT, researchers (e.g., Bouanani, 2015; Çavdar & Doe, 2012; Quitadamo & Kurtz, 2007) argued that learners reflect CT in applying knowledge of their course content. Writing reflects thinking. The recursive and reflective nature of writing assists learners' utilization of CT elements (Bouanani, 2015). Paul and Elder (2006), in this respect, expounded that "in writing, they

[students] are able to clearly and accurately analyze and evaluate ideas in texts and in their own thinking" (p. 5).

The impact of CT in enhancing students' CT ability and thereby writing performance is explicated by various researchers (e.g., Dong, 2015; Lin, 2014; Moghaddam & Malekzadeh, 2011; Zhao et al., 2016). Academic writing is beyond a collection of words, linguistic structures, and paragraphs. Nejmaoui (2019) asserted that effective communication of meaning in writing cannot be attained by haphazardly repeating language. CT is assumed to enable writers to compose texts systematically by retaining the purpose. Composing a text for the intended purpose requires writers to develop plausible reasoning, evidence, and conclusion that ultimately demands CT ability. For instance, generating and inspecting the relevance of the information, and coordinating ideas in a meaningful and reasonable way mainly involve the application of CT. In other words, CT guides writers to "think through a given idea." (Vallis, 2010, p. 5).

Because of the significant role of CT, intellectuals (e.g., Dong, 2015; Dwee et al., 2016; Lin, 2014) advocate the necessity of promoting students' CT in the educational sphere. Khatib et al. (2012) argued that "it is a moral right for learners to learn how to think critically" (p. 34). The promotion of students' CT is, however, influenced by instructors' classroom decisions and beliefs about CT. Instructors' classroom practices and beliefs about students' CT and writing abilities determine the learning condition. Several scholars (Borg, 2003; Breen et al., 2001; Pajares, 1992) indicated the influence of instructors' beliefs on their classroom practices. Instructors' beliefs, which are tacitly impacted by their prior learning experience, educational training, and teaching experience, dictate their actions in the actual context. As Gemechis (2020) explained, instructors' beliefs, which are mainly reflected through their classroom practices, "are a critical foundation for students to receive the knowledge and skills that they need to fulfill their potential" (p.59).

Instructors' classroom practices are assumed to accord with the principles in the educational curriculums in Ethiopia. Promoting students' CT has become one of the pertinent areas in GTP 2010/15 (MoE, 2011). The educational curriculums throughout primary up to university advocate the promotion of students' CT ability using a learnercentered approach (MoE, 2009, 2013, 2018). Correspondingly, instructors' attempt to promote students' CT is emphasized in the Higher Diploma Program (HDP) - inservice training provided to instructors in Ethiopian universities (MoE, 2011). They are supposed to facilitate learning, encourage independent learning, create conducive writing classrooms, and employ meaningful tasks (MoE, 2011, 2013). There exists an expectation that the teaching-learning process embraces both what to think (content knowledge) and how to think (thinking critically) aspects (Crawford et al., 2005; Schafersman, 1991).

Nonetheless, our knowledge about university instructors' beliefs and practices of promoting students' CT in writing classes is limited. For example, Meng (2016) studied the perspectives of primary school EFL teachers about the significance of incorporating CT into the curriculum. The study emphasized reading skills in connection with CT so that writing skill was not the concern. Petek and Bedir's (2015) study, on the other hand, aimed at assessing pre-service and in-service English teachers' perception of CT and its integration into language education. Regardless of the significance of the study in the context of ELT, the participants' conceptualization of CT in the context of ELT was not precisely indicated. Besides, the strategies that the participants used to reinforce students' CT in the classrooms were neglected. Similarly, Tuzlukova et al.'s (2017) study explored English language teachers' beliefs about CT and the association between CT and language teaching methods. Like the studies above, the connection between CT and writing skills received no particular attention. In addition, the study neglected how the teachers' professed beliefs were exhibited in classroom practices.

The aforementioned gaps, therefore, instigated the authors to explore the beliefs and practices of instructors in promoting students' CT in the context of writing classes at the university level. The study addressed the following questions:

1. What are instructors' beliefs about promoting students' CT skills in writing classes?

2. How are instructors' stated beliefs reflected in their practices in promoting students' CT skills in writing classes?
3. What factors influence instructors' practices in promoting students' CT in writing classes?

Literature Review

Critical Thinking and its Elements

Critical thinking (CT) has become the principal issue in different disciplines (Dong, 2015). The philosophical dimension explains the peculiarities or qualities of a critical thinker (Lai, 2011). For instance, Paul and Elder (2006) interpreted CT as "the art of analyzing and evaluating thinking with a view to improving it" (p. 4). For Paul and Elder, CT is about refining thinking by employing particular standards used to scrutinize reasoning. The cognitive psychologists (e.g., Sternberg, 1986), however, criticized the philosophical dimension for its focus on 'formal logical systems' that is incongruent with classroom requirements. Fahim and Mirzaii (2014) argued that the philosophical approach "merely focusing on hypothesized competence viewed in a vacuum, loses sight of real-life performance (p. 5)". Cognitive psychologists describe the actual thinking process. Sternberg (1986) explained CT as "the mental processes, strategies, and representations people use to solve problems, make decisions, and learn new concepts" (p.3). The absence of a clear description of the 'mental strategies', however, makes the interpretation ambiguous and challenging to apply in an educational setting. Educationists adapt definitions either from the philosophy, or cognitive psychology disciplines. The interpretation of CT, thus, embraces both competence and performance orientations (Sternberg, 1986). The use of different expressions to define CT might occur following scholars' attempts to subsume CT in their respective disciplines. This variation, however, cannot imply the existence of significant conceptual differences among intellectuals.

CT embraces both cognitive skills and dispositions. According to Facione (1990), CT involves six cognitive skills: interpretation, analysis, evaluation, inference, explanation, and self-regulation (p.7). Paul and Elder's (2002) category incorporates elements of thought and intellectual standards. Elements of thought represent a related concept with what different scholars mention as 'CT skills'. Paul and Elder attempted to make CT more tangible and susceptible to measurement through the 'Intellectual Standards'. For this reason, most researchers (e.g., Dong, 2015; Wang, 2017) indicated the suitability of Paul and Elder's model to adapt in the EFL context. In the discipline of education, researchers (e.g., Baez, 2004; Dong, 2015) commonly mention Bloom's (1956) taxonomy. The higher-order levels in the taxonomy- analysis, synthesis, and evaluation- are claimed to represent the demonstration of CT in an educational setting (Wang, 2017). Despite variations in the proposed taxonomies, the skills of analysis, synthesis, and evaluation appear across the models.

Possessing CT skills fails to guarantee the disposition to apply them and vice versa (Facione, 2000; Jones et al., 1995). Learners are expected to have the disposition to implement the skills in appropriate circumstances (Qing, 2013). According to Paul and Elder (2002), CT dispositions incorporate intellectual integrity, intellectual humility, intellectual sense of justice, intellectual perseverance, intellectual fair-mindedness, intellectual confidence in reason, intellectual courage, intellectual empathy, and intellectual autonomy (p. 39). Regardless of its relevance, the disposition aspect has failed to obtain adequate recognition in educational settings, particularly in the EFL context. For instance, the disposition aspect gained little weight in studies (e.g., Daud, 2012; Dong, 2015; Lin, 2014) that focused on students' CT and English language learning. The lack of instructional strategies to reinforce students' CT dispositions and the inadequate awareness about the components might have caused the problem.

CT Promoting Strategies in Writing Classes

According to Wilson's (2019) explanation, a language class that is "interactive, vibrant, authentic, explicit and scaffolded" (p. 14) facilitates the promotion of students' CT. A wide array of teaching strategies exist to promote students' CT. These included teacher modeling, collaborative learning, questioning, reading, and writing assignments. The instructors' modeling of the demonstration of CT impacts students' implementation of CT, especially the disposition aspect of CT (Abrami et al., 2008; Buskist & Irons, 2008). Teachers model the demonstration of CT by recognizing biases as well as clarifying their viewpoints (Hofreiter, 2005). Students, thus, become flexible in dealing with alternative ideas, detecting personal bias, and developing the habit of questioning views when conveying ideas in writing (Zhao et al., 2016).

Collaborative learning, which entails group discussion, dialogue, peer evaluation/ review, and group work, supports the promotion of students' CT in writing classes (Buranapatana, 2006; Dwee et al., 2016; Fahim & Mirzaii, 2014). Osborne et al. (2009) argued that learners execute CT by communicating ideas, comparing and contrasting viewpoints, and generating and scrutinizing varied perspectives in collaboration. They become conscious of the potential mental strategies by observing others demonstrate CT components (Buranapatana, 2006; Zhao et al., 2016). Likewise, Daud (2012) stated that learners become open-minded through the process of giving and receiving comments or suggestions of optional ideas from their peers. Collaboration, therefore, assists students in accomplishing complex tasks that demand advanced mental processing and reasoning skills.

In addition, questioning has become a prominent strategy to promote students' CT (Alfares, 2014; Buranapatana, 2006; Fahim & Eslamdoost, 2014). As Fahim and Khatib (2013) explained, "it is the duty of the teacher to implicitly ask students to attend to strategies of CT and to evaluate each reasoning and argument on a multi-dimensional level before accepting it as correct" (p.82). Asking questions during lecturing compels students to analyze and apply the learned contents in different situations (Schafersman, 1991). In describing CT-triggering questions, Beyer (2001a, cited in Buranapatana, 2006) stated the relevance of questions that "call for sustained efforts to reason and to evaluate reasoning" (p.89). These questions demand students to "clarify statements, define terms, and judge the relevance, accuracy, and nature of statements" (p.89).

Furthermore, students' CT can be better reinforced by integrating reading and writing skills (Dong, 2015; Mehta & Al-mahrouqi, 2015). Paul and Elder (2008, cited in Mehta & Al-mahrouqi, 2015) stated that "writing which is not based on critical reading might well be merely personal and exist without either context or wider purpose" (p. 40). In this type of writing, prejudices, biases, myths, and stereotypes become dominant. Therefore, activities that demand analyzing, evaluating, and synthesizing reasoning/ argument, explaining understanding and implied meaning in a text, and asking and responding to questions stimulate students' CT in writing (Case, 2004; Cottrell, 2005; Fahim & Eslamdoost, 2014). Generally, researchers (e.g., Case, 2004; Çavdar & Doe, 2012; Mangena, 2003; Mulnix & Mulnix, 2010) suggested different types of writing tasks. These included argumentative, narrative, and opinion writing; note-taking, summary, and reflective writing as well as seminar papers.

Teachers' Beliefs and Practices in Promoting Students' CT in Language Learning Class

Examining teachers' beliefs is a daunting task due to different conceptualizations of the term. For example, Haney et al. (2003) interpreted beliefs as "one's convictions, philosophy, tents, or opinions about teaching and learning" (p. 367). In a more specific way, Pajares (1992) characterized beliefs as "teachers' attitudes about education-about schooling, teaching, learning, and students" (p. 316). Pajares asserted that every teacher holds beliefs about the profession, the students, the subject matter, and the teachers' roles and responsibilities. In the present study, beliefs refer to a complex set of theories, assumptions, and

perspectives instructors hold about the teaching, learning, and curricula related to writing and the promotion of students' CT in writing instruction.

In this respect, the findings of different studies explicated teacher respondents' beliefs about the interpretation of CT, the nature of CT-promoting activities, and teaching strategies. For example, in Meng's (2016) study, CT was depicted as the ability to produce novel ideas, develop a point of view, solve problems, and make plausible decisions through 'analyzing', 'reasoning', 'processing information' and 'questioning' (p. 178). The respondents' limited understanding of the concept of CT was mentioned as a recurring issue in the studies. In addition, respondents in several studies (e.g., Hasni et al., 2018; Toshpulatova & Kinjemuratova, 2020; Tuzlukova et al., 2017) illustrated varied CT- promoting activities. These were argumentative writing, reflective writing, reporting, blog writing, paraphrasing, and summarizing. Studies (Gregory, 2011; Kanik, 2010; Meng, 2016) further indicated various CT-promoting teaching strategies. These included explicit teaching of CT elements, assessment of CT, inductive approach, inquiry, self-reflection, questioning, group and whole class discussion, and modeling.

The degree of consistency between teachers' beliefs and practices is, however, determined by contextual factors (Borg, 2003; Tsui, 2011). Contextual factors that impede the promotion of students' CT in writing classes are related to students, teachers, and situations. Students' achievement-oriented perception and lack of interest are among the student-related factors. Hofreiter (2005) argued that students who prioritize scoring good grades have less determination to think critically. These students instead prefer memorizing facts, responding to close-ended questions, and struggling to secure their marks (Alwine, 2007; Gregory, 2011; Reynolds, 2016). Besides, students avoid thinking critically about content that they perceived as irrelevant, and they become passive if their interests/needs are not addressed (Buskist & Irons, 2008; Gregory, 2011).

Additionally, teachers' insufficient understanding of CT, and CT- promoting strategies deter their efficacy in explicitly promoting students' CT (Dwee et al., 2016). In this regard, Alwine (2007) clarified doubts concerning instructors' potential to teach CT without a sufficient understanding of CT aspects. The absence of pre-service and in-service methodological training concerning CT has contributed to the teachers' limited awareness of CT (Reynolds, 2016; Snyder & Snyder, 2008). Likewise, Buskist and Irons (2008) associated teachers' abstinence from promoting CT with the teachers' uncertainty about the assessment mechanisms of CT in students' work. Furthermore, situational factors such as time constraints and large class sizes are explained to be hindering factors. Shortage of time obliges teachers to be indecisive about whether to focus on content coverage or encourage depth of understanding and CT (Saleh, 2019).

Method

Research Design

A multiple case study design was adopted. The design helps to extensively investigate the promotion of students' CT in writing classes from the perspective of multiple instructors to gain varied meanings (Yin, 2003). Examining the similarities as well as differences among the cases helped the authors to detect complex and unique insights regarding the issue in the study. Multiple case study aims at developing an indepth understanding of a phenomenon based on its natural setting (Yin, 2014, 2018). This nature of the case study supported the investigation of contextual factors that affect instructors' practices.

Participants

The study was carried out at Wolkite University- one of the third-generation public universities in Ethiopia. Yin (2018) asserted that participant selection in a multiple case study is primarily determined by the potential to generate a thorough understanding of a phenomenon instead of population representativeness. Three instructors were, therefore, purposively selected among the 30 instructors in the Department of English Language and Literature. They were selected in light of their background training, the course they offer, and their teaching experience. Instructors, who were trained in ELT (English Language Teaching), and teach the Communicative English Language Skills II course, participated in the study. These instructors were believed to provide better data due to their familiarity with the issue of the present study. In addition, the study involved instructors based on the length of their teaching experience categorized into three ranges (< 5 years, 5-10 years, and > 10 years). The target instructors' involvement in the study was, however, determined by their willingness and accessibility. The authors guaranteed the instructors the anonymity of the information they would provide.

Table 1. Description of the participants

Instructor Code	Gender	Qualification	Specialization	Teaching experience (in years)
IA	M	MA	ELT	5
IB	M	PhD candidate	ELT	10
IC	M	MA	ELT	14

As depicted in Table 1, the authors used instructor code to maintain the anonymity of the participants. Two instructors were MA graduates in ELT, while the other was a PhD candidate in ELT. Their teaching experience varies from 5 to 14 years.

Data Collection Methods

The data collection methods included classroom observation, interviews, and document analysis. The classroom observation data aimed at addressing the second research question. A semi-structured observation protocol as well as continuous field notes served to carry out the observation. The observation checklist was designed based on insights generated from literature (e.g., Choy & Cheah, 2009; Meng, 2016; Paul & Elder, 2002; Mesfin, 2013; Meseret, 2012). The reliability of the observation data was maintained through data triangulation, frequent observation, and notetaking. The validity was ensured by receiving comments on the observation guide, operationalizing the CT indicators, and employing audio records. Adopting a nonparticipant observation approach, the first author carried out the observation with a support of a voice recorder. A total of nine writing sessions were observed from November 1, 2021, through December 17, 2021. Each of the participants was observed three times.

The interview was used to understand the instructors' unobservable meaning related to the research questions. Three different types of interviews were carried out: 'pre-observation interviews', 'stimulated recall', and the 'main interview'. The preobservation and stimulated recall interviews accompanied the classroom observations. The pre-observation interview preceded each observation session to obtain an explanation of the instructors' plan as a benchmark to explain their actual practice. The stimulated recall interviews helped to detect the participants' rationalization of their practices. They elucidated their rationale for specific classroom decisions after they listened to the selected segments in the audio record. 'The main interview' was conducted after culminating all the observation sessions to explore the participants' general

beliefs concerning CT and the promotion of CT in writing classes. For this interview, a semi-structured interview guide with 11 items related to CT and writing skills was prepared based on previous empirical studies (e.g., McIntyre, 2011; Paul et al., 1997; Rademaekers, 2018; Stapleton, 2011). The main interview took an average of 1:10 hours. A digital voice recorder was employed throughout all the interview sessions. The reliability of the interview data was ensured by applying the same interview items across different participants (Cohen et al., 2000). Besides, comments were sought from the advisor, a panel of experts, and the respondents to maintain the validity.

Furthermore, the authors used document analysis to gain detailed information that strengthens data generated through observation and interviews. This method was particularly relevant to address the second research question thoroughly. The Communicative English Skills II course incorporated several writing activities. Students are required to write different types of paragraphs and an essay. Instructors who deliver the course give students activities mainly selected from the course material. The document analysis, therefore, focused on analyzing the quality of the writing activities the instructors assigned to students, especially during the observed sessions. For this purpose, a guiding framework that incorporated eleven items was used. The guide was designed based on ideas generated from the literature (e.g., Alfares, 2014; Wahab, 2013). The validity of the tool was ensured based on comments received from the advisor, and three experts.

Data Collection Process and Analysis

The data collection took two months starting from November 1, 2021, through December 24, 2021. The classroom observations were performed accompanied by the document analysis as well as the pre-observation and stimulated recall interviews. The main interview was conducted with each participant after completing the observation sessions on December 17, 2021. A memo that embraced informal discussions and personal reflections/perspectives complemented the overall data collection process.

The data analysis in a multiple-case study involves single-case analysis and crosscase analysis (Yin, 2009). The authors analyzed each case thoroughly and performed a cross-case analysis to address the research questions. The qualitative data analysis method was manipulated to treat the data. The data analysis involved three phases of coding: open, axial/analytical, and selective coding (Charmaz, 2006; Merriam, 2009). A constant comparative method that included a continuous comparison and contrast of categories, ideas, or concepts within and across the cases was performed during the data generation and coding process (Charmaz, 2006). The coding was processed using NVivo 10 software. The participants received the final version of the data analysis, and verbatim transcriptions of the observations and the interviews for their validation.

Results

What are instructors' beliefs about promoting students' CT skills in writing classes?

The instructors' beliefs were accessed through interviews. They were asked about their interpretation of CT and its elements, CT-promoting strategies, activities, and feedback.

Interpretation of CT and the elements

There was a shared understanding between IA and IC concerning the interpretation of CT. They described CT as the ability to understand the way to convey information using the appropriate language in writing (see Table 2). IA highlighted:

CT might be related to the information students have in their minds and the way they express it using the grammar, vocabulary, and mechanics they know. It is the ability they use to just remember and brainstorm or jot down the information that they have in their mind at the first stage [Stimulated Recall Interview 1 (SRI1)].

Differently, IB viewed CT in terms of the ability to express ideas convincingly and logically in writing. IB emphasized the quality of the idea that is communicated to the reader. As shown in Table 2, IB and IC held different perspectives concerning the components of CT. For example, in IB's view, CT embraces Knowing, understanding, transferring, making a conclusion, inferring, and open-mindedness.

Table 2. Overview of Instructors' Beliefs about CT Promotion

Core Themes	Explanation	Cases		
		IA	IB	IC
CT Interpretation	The ability to evaluate, and have multiple understandings concerning how to use the language form in writing.	x		x
	The ability to express ideas logically and convincingly.		x	
CT elements	Knowing, understanding, transferring, concluding, inferring, and open-mindedness		x	
	Problem-solving, analysis, synthesis, evaluation, fairness, and reasoning			x
CT-promoting Instructional Mechanisms	Sufficient chance to write	x	x	x
	Meaningful topic	x		x
	Pair or group work	x	x	x
	CT-oriented evaluation system		x	
	Assessing meaning and structure		x	
	Explicit CT introduction		x	
	Scaffolding and follow up	x		x
CT-promoting writing activities	Argumentative writing	x		
	Cause-effect type of writing			x
	Summary writing	x		x
	Logical arrangement of sentences			x
CT-promoting feedback provision	Peer feedback	x	x	
	Instructor feedback			x

CT promoting Instructional Mechanisms

The participants elucidated various CT-promoting mechanisms in writing class (see Table 2). All the participants believed that students demonstrate CT when they obtain the chance to write more frequently instead of solely receiving input about writing skills. IA claimed that the authenticity of the topic transforms students' superficial understanding and description of the issue into higher-level thinking. Similarly, IC expounded on the possibility to promote CT in writing by assigning a variety of writing activities that are related to students' backgrounds, knowledge, and experience. Besides, IA elucidated the contribution of working in groups in minimizing students' anxiety and developing multiple perspectives. IC and IA denoted the possibility that lower achievers elevate their CT ability when working cooperatively with high achievers. IA stated that:

When students write a given essay, the way one keeps the unity of the text is quite different from that of the other. Then, while they share it, they critically think about how to improve, how to write, and how to forward their issue or information [Main interview (M int.)].

Unlike the others, IB elucidated the relevance of CT oriented evaluation system, explicit CT introduction, assessing meaning and structure, and imposing higher expectations on students. Apart from explicitly evaluating the manifestation of students' CT in writing, he indicated the possibility of implicitly promoting CT by seeking students to construct both 'grammatically' and 'functionally' correct sentences. IB illuminated the necessity of training students about the strategies to apply CT. He explained that:

The students can be taught or familiarized with the strategies and techniques that may help them to implement the elements of CT whenever they are writing. Once they know the strategies or the techniques, I think it could be easy for them to employ them whenever they are writing [M int.].

He also argued that students exercise to think critically when teachers consider students' CT ability as a requirement. He said that "We have to tell our students that as a university student, they are required to be critical or showing our expectation […] when the expectation of the teacher is high, the students may attempt to be that level" [M int.]. Additionally, IA and IC advocated instructors' role in scaffolding and follow-up. For example, IA asserted that instructors are responsible for designing and furnishing a path that students walk through. He highlighted that "the way they [students] walk is up to them, but my duty is only building the bridge […] so, I tell students how to reason out for a given issue or problem. I lead them, but the way they write what they have in their mind is up to them" [M int.].

CT Promoting Writing Activities

The participants explained that CT underlies any writing process, though the nature of some writing activities determines the level of CT the writer has to instill. As depicted in Table 2, IA believed that an argumentative type of writing enables students to be reasonable, to engage in an 'evaluative kind of work', to identify the appropriate expression, and to solve a problem. IA and IC claimed that students demonstrate CT skills in cause-effect and summary writing. IC argued that "we also encourage students to make a summary. So they analyze a text and summarize a long text….We are not only teaching writing skills rather we are giving a chance for students to think critically about different subject areas or core courses" [M int.]. Moreover, IC signified the involvement of reasoning as students decide to sequence ideas in activities that demand logical arrangement of concepts.

CT Promoting feedback Provision

Peer feedback and instructor feedback have gained weight compared to selfreflection. According to the participants' view, the criteria that they introduce would implicitly dictate the students to do self-reflection. They believed that students exercise the skill of 'evaluation' when performing peer feedback and self-reflection. The participants, however, doubted the effectiveness of peer feedback compared to instructor

feedback. IA argued that students' writing competence determines their ability to provide comments on others' texts. Likewise, IB contended that most of the students' feedback on their colleagues' written work is always positive. IB and IC considered instructor feedback as a mechanism for identifying the student's current status, motivating negligent students, and appreciating hardworking students.

The content of the feedback determines the students' opportunity to exercise CT in their writing. As the instructors stated, their criteria incorporated the structure of a paragraph (topic sentence, supporting details, and concluding sentence), unity, coherence, completeness, sentence clarity, reasoning, grammar, vocabulary, and mechanics. IB said that "most of the time whenever coherence is discussed, we often discuss the connectives or the linking words. But to write a coherent paragraph or essay, one needs to think critically" [SRI1]. He stated the possibility of sustaining the unity and coherence of a written text through thinking critically.

How are instructors' stated beliefs reflected in their practices in promoting students' CT skills in writing classes?

The instructors' classroom practices were categorized under four themes: classroom interaction, instructional mechanism, the nature of writing activities, and the system of feedback provision. Each theme was elaborated with key indicators and a description of the indicators (see Table 3). The 'description' thoroughly portrays the feature of the key indicators based on the observation data. The implementation frequency designates the frequency at which the instructors implemented a particular strategy. It was counted in light of the number of classroom observations conducted with each participant.

Table 3. A Description of Instructors' Practices

Classroom Practices	Key Indicators	Description	Implementation Frequency		
			IA	IB	IC
Classroom Interaction	Student-student Interaction	Collaboration, confirmation, clarification, commenting, generating ideas	3×	3×	3 ×
	Instructor-student Interaction	Complementing, examining knowledge, monitoring attention, responding to questions, motivating, stimulating thinking, prompting elaboration	3×	3×	3 ×
Instructional Mechanism	Implementing process approach	Brainstorming, drafting, receiving feedback, writing the final draft	3×	3×	3 ×
	Providing input	Steps of the writing process, types of paragraphs, cohesive devices, the structure of a paragraph and an essay	3×	3×	3 ×

	reading text	Sample for the structure of a paragraph, cohesive devise implementation	-	once	once
	Assigning extra activity	Essay writing outside class	-	once	-
	Facilitating	Sharing responsibilities, explaining, providing examples, suggesting terms or expressions, guiding, encouraging	3×	3×	3 ×
The nature of writing activities	Narrative paragraph writing	Personal experience of problemsolving	once	-	once
	Reflective paragraph writing	Lessons learned from Dr. Aklilu	-	once	once
	Argumentative paragraph writing	Banning chat chewing, refuting or supporting the author's point of view, using traditional medicine	once	once	once
	problem solution paragraph writing	global warming problems and solutions	once	-	once
	Informative paragraph writing	Herbal medicine advantages and disadvantages	-	-	once
	Compare-contrast paragraph writing	Traditional versus modern medicine	-	once	-
	Informative essay writing	University life challenges	-	once	-
The nature of feedback provision	Instructor feedback	Content and language focus	3×	3×	3 ×
	Self-reflection	Content and language focus	3×	3×	2 ×
	Peer feedback	Content and language focus	2×	3×	-

Classroom interaction was the most prevalent occurrence in all the participants' classes (see Table 3). There was instructor-student interaction throughout the observed sessions. This interaction concentrated on complementing and questioning students to stimulate their thinking, examine their knowledge and monitor their attention. Most of the instructors' questions during the lecture sessions sought a predetermined answer that mainly required lower-order thinking instead of CT. The student-student interactions mainly occurred when writing collaboratively, peer commenting, and idea generation. For example, during the third observation session, IA instructed students to develop a paragraph individually and then produce a text collaboratively by combining selected ideas from their respective texts. This instance exposed students to analyze, evaluate and identify points through meaningfully interacting with peers. In IB's and IC's classes, students were allowed to share experiences and generate ideas at the prewriting stage.

The finding further revealed instructors' implementation of diverse instructional mechanisms such as process approach, input delivery, assigning a home-take writing activity, and facilitating. The instructors persistently followed up and encouraged students to do the activities using the process approach. Nonetheless, only a few students in the three sections continued writing after receiving feedback on their drafts. According to the observation, the participants provided inputs on different core issues about paragraph and essay writing (see Table 3). IB and IC accompanied the input delivery with sample reading texts. However, at the pre-writing stage, none of the instructors assigned time for students to read the passages that complemented the writing activities in the course material. Yet, few students in IB's and IC's classes were reading the passages before writing. The participants strived to compensate for this gap by reminding students of relevant information, giving examples and clues, and asking for elaboration. Among the others, IB extended students' writing practice by assigning a home take writing activity.

As shown in Table 3, students accomplished several writing activities that requires their CT ability. The activities demanded students to include examples and reasons and recognize the opposite view as well as incorporate ideas other than their mere opinion. For instance, IC informed the students to use sufficient reasons and examples when writing a paragraph about their agreement and disagreement with the author's view. Similarly, harmonizing with his belief about CT elements, IB encouraged the students to consider opposing perspectives while writing an argumentative paragraph about traditional medicine. IA contrarily directed students to focus on their point of argument instead of recognizing the opposite side when writing a paragraph on prohibiting the practice of chewing chat. The students in IB's and IC's classes had more exposure to different writing activities since they did more than one writing activity in a two hours session. Moreover, students had to analyze, synthesize and evaluate concepts in passages when doing some of the paragraph writing activities. The instructors were, however, reluctant to encourage students to read the passages before doing the writing activities.

Moreover, students obtained comments on their drafts through instructor feedback, self-reflection, and peer feedback. IA's and IC's criteria focused on grammar, mechanics, vocabulary, coherence, and unity. IC emphasized students' reasoning, particularly in the second observation session. IB's criteria focused on the inclusion of opposite perspectives, and reasons. Students were not given a separate time for self-reflection. The instructors instead informed these criteria to the students and instructed them to evaluate their draft before peer feedback or instructor comment. Besides, the participants gave feedback to students individually and to the overall class at the end of each session. Peer feedback was the preferable strategy mainly employed by IA and IB. For example, during the third observation day, IA initiated discussions with the peers concerning the comments and learn from their mistakes.

What factors influence instructors' practices in promoting students' CT in writing classes?

According to the participants' explanation, the factors that impede the practice of promoting students' CT in writing classes are student-related, instructor-related, and situational factors. The student-related factors include inadequate understanding of the basic elements of writing and the absence of learners' self-autonomy. The participants contemplated good writing competence as a requisite to concentrate on students' CT. For example, IB said that "We have to teach and we have to remind our students to be critical whenever they are writing. My doubt is whether it is possible to teach or focus on CT on students who even lack the basic skills…how can I teach CT to students who start sentences with a small letter?" [M int.]. Similarly, IC explained the difficulty of promoting CT to students who cannot express ideas meaningfully. Moreover, the participants indicated students' negligence of their responsibility as an obstacle. IB clarified the students' apathy to practicing writing and bringing the necessary materials when they attend classes. He

was, therefore, convinced about the unfeasibility of high expectations concerning promoting students' CT in writing classes.

In addition, the instructors mentioned aggressiveness and poor commitment as instructor-related factors that affect the promotion of students' CT. They indicated the prevalence of instructors who provide discouraging criticisms of students' errors, yet avoid compliments on the students' better attempts. IA disclosed that "most of the instructors in the university, including the instructors in my department, are aggressive on students […] the instructor has to appreciate them for their writing. He/she should give them constructive feedback on the error they have made while writing" [M int.]. In the participants' view, this factor presses students to focus on avoiding mistakes instead of making their ideas clear, and they get compelled to conform to what others believe. Moreover, the participants mentioned instructors' sporadic decrease in commitment to teaching. IB argued that instructors with low commitment are no longer interested in the teaching profession, so they are aloof to following up on how students critically express their points when writing. Instructors with such behavior instead prefer to deliver content that they are familiar with for years.

The instructors, furthermore, stated other situational factors related to classroom size, time constraints, and material preparation. They indicated the unfeasibility of asking students the 'how' and 'why' questions due to large class sizes, and time constraints. IA explained that "the number of students available within a classroom never pave the way to […] evaluate the mistake or to check whether they are applying CT or not [.…] how can I see all those 60 students' activity within an hour?..." [M int.]. The participants clarified their struggle to thoroughly check what students did and give students extra time for further practice to enable them to improve their mistakes due to time limitations.

Moreover, the participants reflected contradictory views regarding the teaching material [communicative English skills II course module]. IB criticized the module for a dearth of diverse situations in the writing activities and for the absence of an explicit introduction to CT. He said that "I do not know whether it is implicitly mentioned there or not. But if you ask me my understanding, it says nothing about CT. So, I cannot say it helps students to develop their CT" [M int.]. Conversely, IC argued that the module provided students with broader experiences and comprehensible themes that trigger students' CT ability. Opposing IC's view, IA complained about the module for including unfamiliar issues to students. He explained that "Even the issues the module comprised are just directly related to that of the Western country. How could I enforce students who came from villages to write about what they did not know?" (M int.). Despite this contradiction, the instructors agree that the material needs additional revision.

Discussion

The participants interpreted CT as the ability to express ideas convincingly or logically and as a strategy to manipulate the appropriate form of language when writing. These definitions imply the purpose the participants attached to CT, yet they confined them to limited expressions. Several studies (e.g., Schulz & FitzPatrick, 2016; Stapleton, 2011) reported the unclear and insufficient definition of CT by respondents. Marijic and Romfelt (2016) associated this gap with the teachers' inadequate training concerning CT. The finding, to some extent, is consistent with some studies (e.g., Beyer, 1984; Chaffee, 2012; Ghaemi & Mirsaeed, 2017; Meng, 2016). These studies described CT as the mental ability to incorporate evidence and reason to convey ideas logically. Among the CT components that the participants illustrated, 'analysis', 'synthesis', and 'evaluation' skills accord Bloom's (1956) higher-order thinking skills, while the 'knowing' and 'understanding' skills are related to the lower-order thinking skills in the taxonomy. The element of 'fairness' is the aspect of Paul and Elder's (2002) intellectual standards. The finding conforms to similar studies (e.g., Assadi et al., 2013; Kanik, 2010; Marijic & Romfelt, 2016; Meng, 2016).

The results further revealed that the participants appreciated classroom interactions in the form of student-student and instructor-student interactions. They implemented the process approach to writing,

prepared inputs on different issues, encouraged collaboration, and facilitated students' learning. Practitioners (e.g., Buranapatana, 2006; Dwee et al., 2016; Fahim & Mirzaii, 2014) argued for the relevance of collaboration since it allows students to share skills and resources. Likewise, classroom interaction that involves questioning and praising students' responses is regarded as helpful. Masek and Yamin (2011) asserted that "probing questions may engage students in a systematic cognitive process that promotes the development of the student's reasoning ability" (p. 117). Students extend their exploration ability when they are appreciated for their responses and when their thought is valued (Masadeh, 2021). Moreover, Matthews and Lally (2010) signified that the process approach to writing assists to "focus thinking and sharpen thinking and reasoning within the subject" (p.137).

Contrary to their classroom practice, the participants advocated the explicit introduction of CT and the provision of an adequate chance to students. The discrepancies might be partly attributed to the participants' limited understanding of CT and lack of experience in explicitly incorporating CT in writing lessons. As different authors (e.g., Buehl & Beck, 2015; Fives & Gill, 2015; Zheng, 2015) stated, teachers' dependence on the belief that is perceived to be suitable for the immediate complex context creates the disparity. Lan and Lam (2020), conversely, argued that teachers are likely to take actions that accord with their beliefs if they hold strong beliefs in that respect. The finding is in contrast to Hasni et al.'s (2018) study that implies consistency between teachers' beliefs and practices in promoting students' CT. This might be due to the weakness of the contextual constraints in influencing the teachers' beliefs. On the contrary, the finding agrees with Bataineh and Alazzi's (2009) study that reported the disparity between the participants' beliefs and their practices in using strategies that they claimed were useful to promote students' CT.

Moreover, the participants believed that giving students meaningful topics and assigning different writing activities help to promote students' CT. The activities demand students to be reflective, compare and contrast ideas, argue with the support of examples and reasons, and include multiple points of view. The instructors, nonetheless, failed to encourage students to read the passages that accompanied the writing activities. This implies that although the activities stimulate students' CT ability, students would not benefit much unless they understand how to handle the activities. Researchers (e.g., Kanik, 2010; Pei et al., 2017; Slavin, 2012) underscored the influence of topic meaningfulness or familiarity on students' motivation and ability to formulate sound reasoning. Moreover, the results of several studies (Çavdar & Doe, 2012; Dong, 2015; Mulnix & Mulnix, 2010; Toshpulatova & Kinjemuratova, 2020; Tuzlukova et al., 2017) indicated the relevance of argumentative, reflective, summary, report, and blog writing to promote students' CT.

Additionally, the participants considered the inclusion of CT into the evaluation system and the assessment of meaning and structure in students' text as strategies to promote students' CT. They believed that self-reflection, peer feedback, and instructor feedback give chances to students to exercise CT in writing classes. They were, however, doubtful about students' ability to provide feedback on their peers' texts. Despite mentioning the relevance of including CT in the evaluation system, the participants were rather uncertain about specific indicators of students' CT in their texts. Regardless of this, they attempted to focus on the clarity, organization, and reasoning in students' texts. Walker et al. (2003) argued that "vigorously grading on grammar instead of commenting might discourage students, inhibiting their willingness to think critically" (p. 65). Students are assumed to enhance their analytical ability, develop the ability to solve problems and recognize their mistakes and make improvements when they engage in the process of self-evaluation and peer-evaluation (Daud, 2012; Liu, 2018).

The findings, furthermore, revealed problems that affect the participants' classroom practice. The student-related factors include a limited understanding of the core elements of writing and the absence of learners' self-autonomy. The instructor related problems were aggressiveness and reduced teaching commitment. Moreover, large classroom sizes, time constraints, and poor material preparation were considered situational factors. The finding is consistent with several studies. As indicated in some studies (e.g., Bataineh & Alazzi, 2009; Schulz & FitzPatrick, 2016), teachers isolate CT from subject matter content and believe that students learn to think critically only after they acquired content knowledge. Likewise,

other studies (e.g., Petek & Bedir, 2015; Schulz & FitzPatrick, 2016) revealed teachers' beliefs that students' insufficient prior knowledge and inadequate language competence affect their CT ability. Similarly, teachers' lack of interest, students' irresponsibility for their learning, time shortage, and large class size were clarified in some studies (e.g., Bataineh & Alazzi, 2009; Ganapathy et al. 2017; Kanik, 2010; Slavin, 2012).

Conclusion and Implication of the Study

The study investigated instructors' beliefs and practices in promoting students' CT in writing classes. The findings revealed that the writing classes were not devoid of the promotion of students' CT. The participants nurtured students' CT by fortifying classroom interaction, assigning different CT-promoting writing activities, scaffolding, and providing feedback. Nonetheless, participants' beliefs about the inclusion of CT in the evaluation system, the explicit introduction of CT, and the assessment of meaning and structure in students' texts were inconsistent with their practices. They mentioned hindering factors related to students' poor competence, inadequate instructors' commitment, time constraint, large class size, and poor quality of the course material.

The findings benefit several concerned bodies in the English language teaching sphere. University instructors obtain insights to examine their classroom decisions and then build their capacity to promote students' CT in writing classes. The study informs teacher educators about the theoretical and practical gaps concerning students' CT promotion in writing classes. Consequently, they strive to equip prospective instructors with the required knowledge about CT and the various CT-promoting pedagogical approaches. Besides, based on the detailed accounts of hindering factors related to the promotion of students' CT in writing classes, they inform prospective instructors on how to cope with the factors. Similarly, material designers may refine the quality of the writing activities by incorporating activities that stimulate students' CT. Along with the activities, they may include diverse CT-promoting strategies that direct instructors' and students' roles in writing classes. Regardless of these relevancies, the present study has limitations that can serve as a starting point for other researchers to do a higher level investigation. Hence, further studies should be conducted on a similar issue by increasing the number of participants, assessing the participants' sources of beliefs, and making frequent observations of classroom practices.

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How to reference this article: Bayou, Y., & Kitila, T. (2023). Exploring Instructors' Beliefs about and Practices in Promoting Students' Critical Thinking Skills in Writing Classes . *GIST – Education and Learning Research Journal, 26.* https://doi.org/10.26817/16925777.1557