

THE IMPLEMENTATION OF HYBRID COMPUTER MEDIATED COLLABORATIVE LEARNING (HCMCL) FOR PROMOTING STUDENTS' CRITICAL THINKING AT IAIN SALATIGA, INDONESIA

DISSERTATION

Submitted in Partial Fulfilment of the Requirements for a Doctorate Degree in Language Education Program

by

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MOTTO AND DEDICATION

Motto:

The teacher should use an appropriate pedagogy of teaching in Hybrid Computer Mediated Collaborative learning in order to improve the aspects of students' critical thinking

Considering the ecological perspective is necessary in order to understand the students' development in teaching learning process

Dedication:

- For Pascasarjana Universitas Negeri Semarang in which I pursue for my Doctorate degree in language Education.
- Institut Agama Islam Negeri Salatiga in which I work for and pursue my career development in the field of education.

ABSTRACT

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Key words; Hybrid Computer Mediated Collaborative Learning, students' critical thinking, communication, reasoning and self reflection

This study is conducted to explain; (1) the implementation of Hybrid Computer Mediated Collaborative Learning (for promoting students' critical thinking, (2) the potentials of students' critical thinking in the aspects of communication, reasoning, and self-reflection promoted in HCMCL class, (3) the process of how HCMCL promoted for students' critical thinking viewed from ecological perspective. For these purpose, an ethnographic case study employing descriptivequalitative analysis used as the approach of analysis. The participant of the study was the international class students who followed Writing III course. In-depth interview, field notes, questionnaires and students' online documents were used as the techniques of collecting data. The finding reveals that the lecturer considered the four key dimensions of time, fidelity, space, and humanness in implementing HCMCL. The students' potentials of critical thinking in the aspects of communication, reasoning, and self reflection were promoted. It shows those students' grammatical aspects and spelling improves from the first draft into the finished product. In communicating with audience, it was found that students' online texts generally communicated successfully considering the purpose of communication. In the aspect of reasoning, it reveals that there was an improvement in the way students organized their information appropriately using cohesive devices from the rough draft into the finished product. Related with selfreflection, the results of questionnaire revealed that the students were reflective in their attitudes and ability in language learning. Finally, the analysis through an examination of five levels of ecological perspective; micro, mezzo, exo, macro and chrono systems of the students shows that all of the systems bounded contribute to promote students' critical thinking.

PREFACE

Alkhamdulillaarobbil 'aalamiin, praise is merely to the Almighty Allah SWT for the gracious mercy and tremendous blessing that enables the writer to accomplish this dissertation entitled; "The Implementation of Hybrid Computer Mediated Collaborative Learning for Promoting Students' Critical Thinking Viewed From Ecological Perspective."

The writer also wishes to express her deep and sincere gratitude for those who have guided in completing this dissertation. This is composed as the purpose of fulfilling the requirements of Doctoral degree which demand the writer to express the results of her research in the form of academic writing. The process of composing needs a high encouragement and patience. Yet, it has taught the writer about the arts of presenting. It also requires the writer to understand the concepts, methodologies and efforts that bring the writer to be a more critical thinker, patient, and work harder. In a nut shell, the story of the 'fairytale' of composing this dissertation shapes the writer mentally, spiritually and physically. The efforts have been done in completing the project. However, the writer realizes that her writing still has limitations. Thus, more constructive suggestions and recommendations are needed for the better improvement. The writer hopes that this dissertation will give contributions for the readers especially for the teachers in order to provide brief description about the pedagogical and the practical explanation of implementing Hybrid Computer Mediated Collaborative Learning in the context of English language teaching, and other researchers who are interested in the similar field of study especially the topic of critical thinking and ecological perspective.

Semarang, January 14th 2019

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CHAPTER I

INTRODUCTION

The introduction covers background of the study, identification of the problems, scope of the study, research questions, purposes of the study, and significances of the study.

1.1 Background of the Study

The basis of informed global citizenship and learning is the ability to critically engage with information, and can best be described by the characteristics of an information literate person. Being 'information literate' means that individuals are able to recognize when information is needed and have the ability to scope, access, evaluate, manage, synthesize, and ethically use information for any task or decision that they are required to undertake (Society of College National and University Libraries, 2011). Another argument from Bundy (2004), notes that being information literate "involves the higher order skills of analysis, synthesis and evaluation, the ability to think critically, to construct and reconstruct understanding in the light of new learning experiences".

Information literacy skills and capabilities form a subset within the range of cognitive, inter and intrapersonal skills which have been deemed necessary in the 21st century. Many scholars also underpin that the higher order cognitive and meta-cognitive skills like critical and creative thinking, problem solving, informed decision making, communication and independent self-directed learning (Bundy,

1998; Koenig, 2011; Radar, 2002) has led to particular interest to teacher education (Johns, 2008). All of the definitions of information literate person above are also in line with the notion of literacy from Raban, Brown, Care, Rickards and O'Connell (2014) which includes talking, listening, visual literacies such as viewing and drawing, and critical thinking — not just reading and writing. It means that to be literate person, individuals should have the skills on such aspects including critical thinking.

In line with the importance of critical thinking as the literacy skill in which it is significant in the current decade, I have found many literatures showing that critical thinking skills among third year university English students in Indonesia lag far behind American secondary and university students (Pikkert & Foster, 2014). Research findings have revealed in particular, South-East Asian students are commonly stereotyped as passive, non-critical rote-learning students who do not engage in deep learning (Mills, 1997). There is some evidence that cultural differences in approaches to educational learning do exist (Mills, 1997). Even so, students from South-East Asia are not a homogenous cultural group and differences between them are quite marked. Some Asian groups reflect only a few or, in some cases, none of the characteristics identified as problematic by academics (Smith, 2001).

Furthermore, books like *Can Asians Think?* by Mahbubani (2002) and *Why Asian are Less Creative than Westerners by Ng* (2001) reflect the concern felt in Asian circles. Numerous articles have focused on this issue, particularly those in journals devoted to teaching English as a foreign language. It is a topic of

particular concern to English teachers in Indonesia.

A critical thinking capacity has also been picked out as an important distinguishing feature between Western academic models of study and non-Western or Confucian-based learning systems (Mills, 1997; Cadman, 2000). South-East Asian students in particular, are generally perceived to be non-critical in their approach to academic texts and are considered to lack an understanding of the requirements of analysis and critique.

Many researchers explicitly stress the importance of helping students develop into critical thinkers (Facione & Facione, 2007; Moore, 2004; Muilenburg & Berge, 2000; Paul & Elder, 2006). Paul and Elder (2006) suggest that developing critical thinkers is necessary and should be the central goal of all educational institutions. They argue that instructors can play an important role in the development of Internet-based students' critical thinking skills through the use of effective strategies. Moore (2004) views that developing critical thinkers is fundamental to good education and that critical thinking skill are necessary in order to function as engaged and active citizens of our world. Olson (1984, p. 31) proposes that by helping students become better thinkers, we would enable them to become better writers and vice-versa.

Theories are divided into two opinions regarding whether critical thinking is best taught as a general skill applied to all disciplines or as a skill used in a particular discipline. Theorists in the field such as McPeck (1990), Nosich, (2005) and Paul and Elder (2006) agree that critical thinking skills need to be taught within the context of a discipline, not as an isolated discipline. McPeck (1981), for

example, believes that critical thinking cannot be taught as a separate subject. He suggests studying critical thinking as it relates to a specific academic discipline. Critical thinking instruction is not effective when taught in isolation. It must be a holistic and integrated component of the classroom curriculum (McPeck, 1990). On the other hand, Facione (1990) and Siegel (1988) believe that there are critical thinking skills that are general and can be applied throughout all disciplines. In line with the discussions of possible meanings and structure of teaching method used to develop critical thinking, educationists have suggested some ways to enhance this. Some doubt if critical thinking can be explicitly taught at all (Ramanathan & Atkinson, 1999). However, in numerous books and articles, it is reported that collaborative learning can promote critical thinking, particularly in general education. Johnson and Johnson (1994), for example, declare that collaborative learning is a crucial element in successful learning. Furthermore, Jacobs (2001) summarizes ten studies that consider the relationship between collaborative learning and thinking. He concludes that most studies he reviewed point in one direction: collaborative learning is more effective than other modes of instruction for higher-level tasks.

Though many studies found a relationship between critical thinking and collaborative learning, most research (Johnson & Johnson, 1994; Jacobs, 2001) has been carried out on the traditional face-to-face context. Research into critical thinking within the context of online language teaching and learning is very new. In the face-to-face learning context, collaborative learning activities provide more interaction for both teachers and students than is possible in the whole-class

approach (Jacobs & Hall, 2002). However, Nunan (1992) recognizes that there are certain difficulties involved in the collaborative efforts of learners, teachers, and curriculum specialists. He suggests that this methodology is a complex one, involving unpredictable factors, so that implementation may require greater effort from all parties involved.

Implementation is even more complex when it comes to online situations. Warschauer and Whittaker (2002), recognizing the new challenge, suggest that teachers should think carefully about how to integrate Information Communication Technology into their existing courses. They also warn that any attempt to integrate online teaching needs to show awareness of the complexity of implementation. Many variables are involved when it comes to the online collaborative situation. There are more things for them to experience than in the normal classroom. Above all, they need to be critical about the information available. Determining whether any given information is relevant is a signpost to critical thinking. In this case, what has been done in the classroom should provide the context as support to scaffold students' development in learning. Hybrid Computer Mediated Collaborative Learning (HCMCL) provides scaffolding for students to develop students' critical thinking.

Research documents the effectiveness of CMCL. For example, Hoyles, Healy and Pozzi (1992) report that use of computer-mediated learning environments foster student interaction, thus resulting in successful learning experiences. They also found (1994) that collaborative computer-based tasks can lead to higher-order thinking, hypothesis formation, and reflection—and, by

implication, also improve problem-solving skills.

Enhanced social interactions within a computer-mediated collaborative learning environment, can further encourage self-regulated learning (Grabe & Grabe, 2007), as well as improve the overall classroom climate (Slavin, 1995). Styler and Philleo (2003), and Avgerinou, et.al (2005) recommended the use of technology to enhance reflective journaling.

Related with the influence of computer technology on education in general and ELT in particular (Warschauer & Whitaker, 2002), and the big role of critical thinking in language learning, the relationship between CMCL and critical thinking in language learning as it has been described above merits investigation.

Many scholars claimed that writing is regarded as the means to boost students' critical thinking skills. For example, Kupperman and Wallace (1998) argue that writing assignments on the internet can be considered as a real application of critical thinking skills as it involves collecting, analyzing, synthesizing and evaluating information. Dixon et.al (2005) emphasize that writing is a vehicle through which students can express their critical thinking, and that writing seems to be an expression of critical thinking when students are trained to use critical thinking methods consistently in writing.

Writing is thought to contribute to the development of critical thinking skills (Kurfiss, 1988). Applebee (1984) suggested that writing improves thinking because it requires an individual to make his or her ideas explicit and to evaluate and choose among tools necessary for effective discourse. Resnick (1987) stressed that writing should provide an opportunity to think through arguments and that, if

used in such a way, could serve as a "cultivator and an enabler of higher order thinking." Marzano (1991) suggested that writing used as a means to restructure knowledge improves higher-order thinking. In this context, writing may provide opportunity for students to think through arguments and use higher-order thinking skills to respond to complex problems. Writing converts students from passive to active learners and requires them to identify issues and formulate hypotheses and arguments. The act of writing requires students to focus and clarify their thoughts before putting them down on paper, hence taking them through the critical thinking process. Writing requires that students make important critical choices and ask themselves (Gocsik, 2002). It was clear that the students' writing ability can be used as the means to measure students' critical thinking.

Highlightening the issue of how critical thinking can be taught in writing course using HCMCL and the perspective used to see the learning development occurs has become the topics which are essential to be discussed. The studies about learning development viewed from ecological perspectives in teaching learning are found. Many studies have been conducted to view the influence of ecological perspective in teaching-learning context (Park ,2015; Leach, 2010; Lam, 2010; Nystrand, Gamoran & Carbonaro,1998; Raleigh, 2013; Jeong So, 2008; and Pinnow, 2008). However, studying lerning development in EFL context related with the topic of critical thinking and HCMCL viewed from ecological perspective in Indonesia is very rare. One of study the researcher found was conducted by Sumarwati and Anindyarini (2017); they argued that traditional ecological knowledge could be an approach to maintain customary knowledge.

This research is even not conducted in the context of ELT. Therefore, the researcher is interested to study the issue of HCMCl, critical thinking in writing and using ecological perspective to view the learning process of development.

The International class program which is organized under the management of IAIN Salatiga manages their students to compete in the global world by preparing their students to become good critical thinkers. This demand is appropriate with one of the long term goal of the establishment of this class that is to produce and lead their students to study abroad. Yet, based on the results of observation and interview with the lecturer of writing, it has been found that students' critical thinking is low. To define the students' critical thinking, the researcher take the concept from Benesch (1993), Fox (1994) and Ballard (1995) who argued that the aspects of critical thinking were as follows: (1) communication, (2) reasoning, and (3) self-reflection, this notion has the closest elements with writing elements and has socio cultural dimension. The concept of critical thinking here is not simply about critical thinking; it is a model that is designed to ensure that language learners experience all the elements of critical thinking. Based on pre-survey data of interview with the lecturer of writing class; the students 'critical thinking is low, its indicators are; their ability to use linguistic conventions, to communicate with their audience and to attain their aims in communication are poor. Besides, their ability to give reasoning and self reflection is also under average.

Evaluating the problem found in this class, the lecturer of writing decided to use Hybrid Computer Mediated Collaborative Learning to develop students'

critical thinking. Meanwhile, to analyze students' development in learning, the researcher uses human development theory from the developmental psychologist, Bronfenbrenner (1979, 1998). Bronfenbrenner outlined ecological systems theory drawing on earlier work of Kurt Lewin and the notion that human development (and learning) occur in multiple contexts (Campbell Gibson, 1998). The use of ecological model itself has been practiced widely in many ways in the field of psychology, medicine, social work or even politics. The ecological theory is going to see the language development not only from the micro but also encompassed psychological, social, biological, cultural, and identity structures in human development (Bronfenbrenner ,1979). Ecological systems theory approaches individuals' development from the standpoint of ecosystems that directly contain the individual (microsystem) such as home, school, and community, to those that connect these various structures (mezosystem), as well as larger societal structures that do not affect the child directly but influence events that can determine future courses of action for the child (exosystem). Bronfenbrenner (1979) posited that a final macrosystem contained culture, values, principles, and societal laws (Berk, 2000) that affect and shape all the other systems as well as a chronosystem (Bronfenbrenner, 2005) reflecting time and historic changes of societies and cultures. One of the primary strengths of this model is that it recognizes culture, ideologies, societal principles, values, and laws as having a powerful role in the shaping of all other ecosystems.

This theory is useful for research espousing an ecological worldview because it is activity-based and focused on the connections within and across nested systems (van Lier, 2003, 2004). Therefore, the researcher is interested to use this worldview as the perspective in seeing the students' learning development in critical thinking in writing class which implemented HCMCL. In line with this, the researcher is interested to conduct an ethnographic-case study of the implementation of Hybrid Computer Mediated Collaborative Learning for promoting students' critical thinking viewed from ecological perspective.

1.2 Identification of the Problem

Based on the background of the study above, the problems are identified. Firstly, the international class program at IAIN salatiga which has the mission to lead their students to compete in the global world, it has the duty to teach them to be a good critical thinkers. Yet, based on the data taken from the preliminary research, it has been found that the students' critical thinking is low. In order to teach students' critical thinking, the lecturer used writing course as the means of boosting students' potentials in critical thinking as has been claimed by many scholars, such as Dixon et.al (2005), Paul & Elder (2006), Marzano (1991 and Applebee (1984). In this case, the lecturer has initiative to implement Hybrid Computer Mediated Collaborative Learning in writing class for promoting students' critical thinking. This phenomenon is interested to be seen as the case study.

Secondly, the studies conducted in western countries about learning development viewed from ecological perspectives are found; however, some of them did not have the connection with English Language Teaching (ELT). The only study which was conducted by Sumarwati and Anindyarini (2017) in

Indonesia discussed the social phenomenology, saying that traditional knowledge can be used as an approach to maintain customary knowledge. So that the researcher is interested to explain the unique phenomena of the use of Hybrid Computer Mediated Collaborative Learning for promoting students' critical thinking in certain context of setting in which it is viewed from ecological perspective. This perspective offers seeing the language development not only from the micro but also encompassed psychological, social, biological, cultural, and identity structures in human development (Bronfenbrenner, 1979, 1989). This view raises new and meaningful effort of understanding learners in the field of second/foreign language acquisition and literacy practices.

1.3 Scope of the Study

This study focuses on three scopes. Theoritically, some studies related to Hybrid Computer Mediated Collaborative Learning in ELT context are conducted in the last ten years. Some studies evaluated the implementation of HCMCL for promoting the productive and receptive language skills. Meanwhile, other studies highlightened the use of HCMCL for boosting critical thinking. However, the current study underlined the use of HCMCL for promoting students' critical thinking in the productive skill of language i.e writing.

Moreover, this study used the ecological perspective of seeing the students' development in critical thinking. In the field of education, an ecological perspective has also been used to create a critical perspective (Moje, Young, Readence, & Moore, 2000) for extending literacy studies outside of the school ecology and into home and community ecologies in order to understand and

interpret multiple literacies practices (Barton, Drake, Perez, St. Louis, & George, 2004; Hawkins, 2005; Moje et al., 2000), community maintenance (Matusov, 1999), and parental engagement (Barton et al., 2004). Based on these two uniqueness, the researcher hopes that this study is able to employ an ecological perspective in the manner of the New Literacy Studies in order to extend examination of literacy practices beyond the school ecology, and also situate our understanding of literacy practices within cultural and societal contexts.

This study is also limited in terms of the notion of critical thinking used. The researcher take the concept of critical thinking from Benesch (1993), Fox, (1994) and Ballard (1995) which has three identifiable aspects: (1) communication, (2) reasoning, and (3) self-reflection. These aspects have a closer relationship with writing as a productive skill and contain ecological elements which will be the knife of analysis in this study.

1.4 Research Questions

Accordingly, the study attempted to address the following research questions:

- 1.4.1 How are strategies conducted by the lecturer in implementing Hybrid Computer Mediated Collaborative Learning to promote students' critical thinking?
- 1.4.2 How do the students promote critical thinking in the aspects of communication?

- a. How do the students use linguistic conventions?
- b. How do the students communicate with their audience?
- c. How do the students attain their aims in communication?
- 1.4.3 How do the students promote the critical thinking in the aspect of reasoning?
- 1.4.4 How do the students promote critical thinking in the aspect of self-reflection?
- 1.4.5 How do the process of students' development in critical thinking in this class viewed from ecological perspective?

1.5 Objectives of Study

This study has purposes;

- 1.5.1 To analyze the strategies which are conducted by the lecturer in implementing Hybrid Computer Mediated Collaborative Learning in order to promote students' critical thinking.
- 1.5.2 To analyze the students' promotion of critical thinking the aspects of communication.
- 1.5.3 To analyze the students' promotion of critical thinking in the aspect of reasoning.

- 1.5.4 To analyze the students' promotion of critical thinking in the aspects of self reflection.
- 1.5.5 To analyze the process of students' development of critical thinking in this class viewed from ecological perspective.

1.6 Significances of Study

This study is significant in two aspects, theoretically, this study can give contribution in language research to see the importance of considering micro, mezzo, exo, macro and chrono levels of ecological perspective to see students' development in learning especially in English language teaching. Since very few completed studies that concern with CMCL in ELT, and especially considers studies that address issues relating to critical thinking viewed from ecological perspective. The researcher agree with Leonard (2011), who praises this framework for analyzing learning settings because it is expansive, yet focused; one eye is trained on the complex layers of school, family and community relationships, and the other eye is sharply focused on individual student development (p. 990).

Practically, the involvement of ecological aspect is practically challenging in educational context, however, in a wider context it has been applied by many practitioners in western countries. One of the primary strengths of this model is that it recognizes culture, ideologies, societal principles, values, and laws as having a powerful role in the shaping of all other ecosystems. This study can give new insight for the teachers about the importance of considering ecological

aspects of students in teaching learning process. Tissington (2008) points out the applied significance of this theory because it suggests that intervention in any of the sub-environments can enhance development. Campbell Gibson (1998) examines this theory in the distance education setting, reminding the reader why it is important to consider the broad social context within which distance learning occurs because this social context can profoundly affect the success of the distance teaching-learning transaction (p.113).

In a more practical aspect, the results of the study can give a brief overview for English teachers of how to implement HCMCL in the class. The teachers need to understand the key dimensions of implementing HCMCL in the class and the pedagogy used in order to make it successful. The use of technology is beneficial, yet, the factor which determine the students' successful is not merely on the technology itself but it relies on the pedagogy implemented. What lead the students to actively engage in knowledge construction and acquisition process so that they are well prepared for taking part in class activities such as collaboration, cooperation and problem solving? What principle should be practiced by the lecturer or teacher who views that teaching and learning as social and scaffold process emphasizing students taking control of their own learning? All of these questions are pedagogically answered in this study.

CHAPTER II

LITERATURE REVIEW, THEORITICAL FRAMEWORK, AND FRAMEWORK OF THE STUDY

This section focuses on the review of literatures as the source of the research study conducted by the researcher. It consists of literature review, theoretical framework and framework of the study.

2.1 Literature Review

In this section, the researcher reviewed some previous studies based on the topics discussed, not based on the methodology used. The researcher describes it by categorizing the related studies which focused on the use of collaborative learning in EFL/ESL context and the implementation of HCMCL in improving students' competence in EFL/ESL learning context. Then, the researcher also serve some studies that focused on considering the socio cultural support in HCMCL classroom. In this case, many researchers found that considering the socio cultural and affective issues in HCMCL context is very urgent. The researcher also undermined a growing number of research results related to the implementation of HCMCL used to promote critical thinking. More specifically, the researcher found many researchers who claimed that the use of HCMCL raises the positive effects on learning, some highlighted that it develops students' critical thinking, develop students' writing and academic achievement. In order to make it systematic, the researcher review it into four categories; they are the use of collaborative learning

in English Foreign Language (EFL) and English as a Second Language (ESL) context, the implementation of HCMCL in EFL/ESL context, promoting critical thinking through collaborative learning and considering ecological perspective in teaching through HCMCL. Majority, the context of the study occurred in the context of teaching writing as EFL/ESL.

2.1.1 The Implementation of Collaborative Learning in EFL/ESL Context

Collaborative learning has been proven to be one of the effective learning methods in enhancing student's writing skill. Many researchers have conducted studies to examine the implementation of collaborative learning toward students' writing achievement (e.g., Farikhah, 2012; Gufron & Hawa, 2015; Standish, 2015; Sofwan and Suraya, 2013).

In an experimental research, Farikhah (2012) conducted a classroom action research to examine the effect of Thematic Progression Patterns with Cooperative Learning Method (TP-CL) on the improvement of the students' writing skills and the teaching- learning activities of writing courses. This study was administered in the fourth semester students of "Writing III" class of the English Department of Magelang Tidar University. It can be inferred from the study that the implementation of TP-CL method improved students' writing competence and created effective teaching-learning activities. In line with this study, Gufron and Hawa (2015) observed the effect of Collaborative Writing Technique in teaching argumentative essay writing viewed from the students' creativity. This experimental study were conducted to find out whether or not

Collaborative Writing Technique is more effective than Direct Instruction in teaching writing of argumentative essay; whether the students who have high creativity have better writing ability than those who have low creativity; and whether there is an interaction between teaching techniques and creativity in teaching writing. The overall study was to conduct a pretest-posttest control-group experimental study using Collaborative Writing Technique as the experimental treatment compare to Direct Instruction. The experiment was administered to 126 fourth semester students of English Department of IKIP Bojonegoro in the academic year 2014/2015 as the total population. The whole population then divided into three classes and the samples were selected using cluster random sampling consist of 42 students in each class. The result of the study showed that Collaborative Writing Technique is more effective than Direct Instruction in teaching writing; students with high creativity have better writing ability than those having low creativity; and there is an interaction between teaching techniques and creativity in teaching writing.

Congruent with the above research, Standish (2005) also did an experimental study to examine the effects of collaborative strategic reading and direct instruction in persuasion on sixth-grade students' persuasive writing and attitudes. He administered the treatment effects using six measures of persuasive writing: the Adapted Toulmin Scoring Criteria (claim, data and backing); coherence and organization; five-paragraph structure; and essay length; and the Writer Self-Perception Scale to assess the relationship between students' attitudes toward writing at the beginning of the study and at its conclusion. The findings

suggested collaborative strategic reading and direct instruction in persuasion is a powerful combination for teaching students to write persuasively.

Furthermore, Sofwan and Suraya (2013) did further research in enhancing students' content and organization of written text through cooperative learning. The study is aimed to improve the students' contents and organization by engaging them in cooperative learning activities. The subjects of this study were 26 eleventh grade students. They implemented two cycles of an action research where two types of genre were taught: report and narrative. The finding of the study showed that after two cycles of action research, there was improvement in the students' writing contents and organization. The study also revealed that the students' competence in writing content improve from poor to fair in which they were able to move from scratch and choppy writing to the level of writing with ideas clearly stated completed with knowledgeable information. Conversely, the study found that in the organization, the students' competence in organization of written text were decline from the level of fair to poor in which they were lacking of logical sequencing and unable to organize ideas in a logical order.

To prove whether the use of collaborative learning is effective used in reading comprehension or not, many researchers conducted a study (Mujiyanto and Rosari, 2016; Fitriati & Oktaviana, 2017; Marzuki, 2016; Faiza, Maarif & Sugesti, 2012; Wahyunengsih, 2017).

A study conducted by Mujiyanto and Rosari (2016), they intended to find ou the effectiveness of Know-Want-Learned (KWL) and Collaborative Strategic Reading strategies to teach reading comprehension to students with positive and negative attitudes. The object of the study was the eleventh grade students of SMA N 2 Mranggen, Demak. The data was collected through closed-ended questionnaire, observation checklist, and interview to categorize the students' attitudes into positive and negative and reading comprehension test was given to test the students' ability in reading comprehension. The study revealed that KWL and CSR were more effective to students with positive and negative attitudes. Secondly, Fitriati and Oktaviana (2017) observed the effectiveness of Student Team Achievement Division Cooperative Learning (STAD-CL) and Direct Instruction (DI) in teaching reading comprehension to students with different learning motivation. The study intended to investigate the effect of STAD-CL and DI on improving students' reading comprehension and to find the solutions as well as strategies to make teachers have the preference to use STAD CL and DI in the teaching process. The results of this study showed that STAD CL as teaching strategy for teaching reading compared to DI was more effective than DI because most students stated that STAD CL contributed to increase the reading performance in the classroom.

It was also found that there were four studies used cooperative learning in teaching reading. Marzuki (2016) did a classroom action research which aims to utilize cooperative learning in teaching reading skills for Islamic college students. The data were collected from the results of the test, observation checklist, and field notes from 30 students of PAI program as the subject of the study. The findings revealed that the students were being more active in joining classroom activities and completing their tasks and thus cooperative learning was effective in

developing students' reading skill. Faiza, Maarif and Sugesti (2012) conducted an action research to seek the effect of the use of Cooperative Integrated Reading and Composition (CIRC) toward the improvement of teaching and learning process of reading comprehension. The study was conducted collaboratively taking the students of grade VII of MTs YAPI, Pakem Sleman, Yogyakarta 2011/2012. After in-depth observations, interviews and tests, the study revealed that the students' involvement, motivation, reading and writing abilities as well as the teaching and learning process improved. Wahyuningsih (2017) emphasized the previous researches that collaborative learning is effective to improve students' reading comprehension. She undertook a classroom action research to investigate the significance of the implementation of Cooperative Integrative and Reading Composition (CRIC) Strategy to Enhance Reading Comprehension. The subjects of the study were the first grade students of SMK N 2 Malang. The findings revealed that CIRC strategy is effective to enhance the students' ability in reading comprehension by employing several steps; reading aloud, group responses, short composition, and individual and group presentations. At last, Jalilifar (2009) who found that cooperative learning (STAD type) was effective in improving EFL reading comprehension achievement.

Different from the previous studies which undermined the research on the use of CL related with the skills of language, these studies claimed that cooperative learning is regarded as one of the most effective teaching method in language learning. Astuti and Lammers (2017) conducted a qualitative research to reveal how Cooperative Learning (CL) works in improving learner's

communicative competence. The study was conducted to investigate the role of individual accountability in CL of EFL Indonesian learners. A constructivist grounded theory was administered to collect the data from two secondary school EFL teachers, 77 students in the observed classrooms, and four focal students through participant observation, in-depth interview, and document analysis. The findings revealed that the EFL learners had opportunities to use the target language through individual accountability in CL and effective to improve students' communicative competence.

Not only in writing and reading, there were three research results showing the effectiveness of collaborative learning in improving students' speaking skill and translations (Darmuki, et al, 2017; Hartono & Yuliasri, 2011; and Khumairoh, 2015).

Darmuki, et al (2017) conducted the research to see the effectiveness of collaborative learning in improving students' speaking ability. The objectives of the research were to evaluate the effectiveness of cooperative approach in terms of the development of student's speaking ability, the effectiveness of speaking learning activity, and the learning instruction of guidance book; and to figure out the significant difference result pre and post cooperative model. They combined descriptive evaluative and experimental design approach to evaluate cooperative model applied for Indonesian Language and Literature Department at IKIP PGRI Bojonegoro, Ronggolawe University in Tuban, and Darul Ulum Islamic University in Lamongan. The study revealed that Cooperative Learning influenced significantly in improving students' speaking skill competence.

The other study which was conducted by Hartono and Yuliasri (2011) also found that that cooperative learning is effective method in teaching translation in Semarang State University. Hartono's research findings showed that the Cooperative Work Procedure can create conducive situations for students to produce a good translation product. Meanwhile, according to Yuliasri, the study showed significant improvement in students' translation in diction, grammar and rendering of message/content of the text using collaborative learning techniques especially jigsaw and think-pair-share. By Implementing Cooperative Learning techniques and group work she suggested that the students were more active, motivated, enthusiastic, interested, and they gained better understanding of translation techniques. Based on the observation and questionnaires showed that through group work the students were more aware of their mistakes and they could get varied translation of their teammates. At last, the study conducted by Khumairoh (2015) also claimed that cooperative script method was significantly effective in teaching speaking at the eighth grade students of SMP Negeri 1 Buay Bahuga.

Some researchers claimed that the use of collaborative learning is effective in ELT learning, they are Dooly (2008), Strijbos and Fischer (2012), and Astuti (2016). They elaborated the overview of cooperative and collaborative learning in constructing learning together. The first researcher examined how the premise of constructivism provides an important affiliation for collaborative and cooperative work, as well as how this type of approach easily fits with online language learning projects. The second explained the methodological challenges for

collaborative learning research. They introduced a multitude of theoretical accounts for collaborative learning as well as a broad spectrum of methods to study processes and outcomes of collaborations. More specifically, Astuti (2016) did a study which focused on the challenges of English as a foreign language (EFL) novice teacher in Indonesia in developing to be a practitioner of cooperative learning as a mandated teaching method in the 2006 and 2013 Indonesian curriculum. The study identified four challenges of the development of the professional identity based on the theory of the development of Selves proposed by Wenger's Concepts of Community of Practice, Lave and Wenger's Concepts of Situated Learning: Legitimate Peripheral Participation, Gee's Sociocultural Views of Identity, and Holland, Lachicotte, Skinner, and Cain's Concepts of Identity and Agency in Cultural Worlds. Those four challenges being identified in her study were the unavailability of community of cooperative learning practitioners, hegemony vs. identity development, agency in the midst of tensions, and institutional identity vs. professional identity. The result of the study showed that those four challenges were interconnected and overlapping. Thus, it suggested that novice EFL teachers should possess agency to attain the target identity.

It can be seen from the research studies above that all of the researchers found that collaborative learning can improve students' competence and motivation in many varieties of skills, i.e writing, reading, speaking, and translation. All findings proved in one direction that it leads to the better achievement.

2.1.2 The Implementation of HCMCL in EFL/ESL Context

It has been known widely that the implementation of HCMCL is regarded as the effective teaching-learning methods in ESL/SFL context. Some researchers who argued that collaborative learning can be implemented using online sources are Heeter (2014), Lehtinen, et al (2016), Lehtinen and Collazos, et al (2004) Janssen, et.al (2006).

Heeter (2014) analyzed the sequential of collaborative writing and editing processes in Wikis to evaluate the quality of students' written arguments on 16 graduate students enrolled in an online course on inquiry and measurement. The findings of the study revealed that the collaborative writing process used by students working in teams to develop a high-quality argument in a wiki consisted of six action sequence patterns while teams producing a low-quality argument consisted of only two action sequence patterns. She suggested that specific action sequences and more structured collaborative writing processes may help to produce high-quality arguments. Meanwhile, Lehtinen, et al (2016) reviewed that Computer Supported Collaborative Learning (CSCL) is one of the most promising innovations to improve teaching and learning with the help of modern information and communication technology. The study suggested that CSCL will encourage the learners involve on the mutual engagement in a coordinated effort to solve the problem together through technology-aided learning environments. In line with Lehtinen's study, Collazos, et al (2004) elaborated a method for evaluating Computer-Supported Collaborative Learning (CSCL) processes. The study was intended to evaluate the collaborative learning process as well as to present a

method which can be used to analyze the interaction processes in a CSCL environment. They proposed five cooperation indicators to evaluate collaborative group work. They asserted that the five indicators did provide some insight into the collaborative work done by the groups and can be used to detect group weaknesses in their collaborative learning processes. The results suggested that the shared construction of a strategy-understood and adopted by every member of the group is related to a successful process, to the individual construction of cognitive context, and to the experiences shared by the group members. It also enhances the elaboration of strategies and facilitates its application.

Among of the five cooperation indicators proposed by Collazos, et al above, the shared construction of a strategy-understood and adopted by every member of the group which related to a successful process proven to be true by the study conducted by Janssen, et .al (2006). They investigated whether visualization of participation contributes to successful Computer-Supported Collaborative Learning (CSCL) or not. Participation Tool (PT) was used to enhance a CSCL-environment. The PT visualizes how much each group member contributes to his or her group's online communication. The findings of this study demonstrate that visualization of participation can contribute to successful CSCL revealed through the use of PT quite intensively by the students. It is also proved that students were participated and engaged more in coordination and regulation of social activities during collaboration activities.

However, a number of research results show that the effectiveness and validity of online ESL learning remains controversial (Zhang, 2013; Paris, 2002).

Zhang (2013) started her research based on the assumption that online learning has become a viable popular alternative to traditional ESL writing classes over the past decade. This study presents a case study of two participants in an online ESL writing course at a university in the Northeastern United States. Using activity theory as a framework, she explores what makes a successful learner in an online environment and how learner agency, motive, and self-regulation impact student performance and academic achievement in the online learning context. Data from different sources were collected to provide a triangulated analysis. Results suggested that the learners who employ good self-regulation strategies and are motivated to learn and adapt tend to benefit more from the online learning experience, while students who do not employ such strategies and are motivated solely to fulfill a degree requirement are more likely to be frustrated. The results also revealed that the physical distance created by technology could be a challenge for those who do not seek assistance from instructors or peers. In other words, learners need guidance and support on how to be self-motivated and selfdirected in the online environment.

Meanwhile, Paris (2002) also found that information on the Internet, such as World Wide Web sites can be written by anyone. Since there is no quality control for information published on the Internet, it becomes our responsibility, as individuals, to judge what is right, wrong, immoral, illegal, biased or totally incorrect. This form of judgment can be taught and learnt. This decision making process is called 'critical thinking'. This research involves 35 students and seeks to investigate what kinds of critical thought processes are engaged when accessing

and using information from the Internet. The results indicate that there is a need for learners to be more critical when using information from the Internet; hence educators and learning institutions need to address this matter before extensively using the Internet for learning.

Despite all the controversies whether the use of online or computer-based collaborative learning is effective in ESL/EFL context or not, some studies found that there should be some considerations while implementing CSCL in the course (Meier, et al, 2007; Ware & Warschauer, 2004; Sorden ,2011).

The study done by Meier, et al (2007) could be one of the alternative solutions to decide whether the CSCL in ESL/EFL context can be implemented or not. They did a study to analyze the rating scheme for assessing the quality of Computer-Supported Collaboration Learning (CSCL) processes. It is basically nine dimensions of collaboration namely sustaining understanding, dialogue management, information pooling, reaching consensus, task division, time management, technical coordination, reciprocal interaction, and individual task orientation. The data was taken from a study on students of psychology and medicine collaborated on a complex patient case via a desktopvideoconferencing system. The data were analyzed through a sample transcribed dialogue then integrated with theoretical considerations about the roles of communication, joint information processing, coordination, interpersonal relationship, and motivation in the collaboration process. The findings suggested that the new method can be recommended for use in different areas of CSCL.

Furthermore, the use of computer-based feedback can be another

alternative beside the use of rating scheme for assessing the quality of Computer-Supported Collaboration Learning (CSCL) processes as the study proposed by Ware and Warschauer (2004). They summarized and analyzed three main strands of research on computer-based feedback on second language writing. The first area examines research on the potential usefulness and cost-effectiveness of software-generated feedback to replace or enhance direct human feedback. The second strand is comparative, evaluating the effect of computer-mediated human feedback on ESL writing when compared with more traditional face-to-face feedback. Researchers examine how to best provide grammar and stylistic feedback, how to help students become more autonomous in correcting their own errors and in reflecting on their writing, and how to foster the development of students' writing strategies. A third strand of research, often framed by a sociocultural perspective, examines differentiation within electronic modes and the feedback provided in cross-cultural and cross-linguistic exchanges through online collaborations. The chapter concludes by summarizing lessons from these three strands of research for instruction and future inquiry.

Sorden (2011) examined the relationships among collaborative learning, social presence and student satisfaction in a blended learning environment. The study which conducted on spring 2011 on 98 students from 11 blended courses used Social Cognitive Framework for Blended Learning (SCFBL) as guide for designing blended learning experiences; and used social cognitive theory (SCT) and the related theory of self-regulated learning in social settings, focusing on the study of social knowledge and the cognitive processes. The data were collected

from the Collaborative Learning, Social Presence, and Satisfaction (CLSS) Questionnaire. After deep analysis the study showed that there is significant correlation between the constructs of perceived social presence, perceived collaborative learning, and reported course satisfaction as measured by CLSS Questionnaire in a blended course at one community college campus. However, the study found that there is no significant correlation between student demographic data (gender, age, ethnicity, computer expertise, and number of distance courses previously taken) and the constructs of perceived social presence, perceived collaborative learning, and reported course satisfaction as measured by the CLSS Questionnaire at one community college campus.

Although remain in controversy, Computer Mediated Collaborative Learning has become one of the most used methods in ESL/EFL context and still continues to be developed throughout the years (Masters, et al, 2008; Kern, et al, 2008; Rukmini & Abdillah, 2013; Ghauth & Abdullah, 2010; Nguyen 2011).

Masters, et al (2008) for example, developed *ExplaNet*: a collaborative learning tool and hybrid recommender system for student-authored explanations. It is a web-based, anonymous, asynchronous explanation-sharing network where the learners submit their explanatory answer to the instructors posted question. The tools enable the student to view and rank the explanations submitted by their peers before optionally resubmitting a final and revised answer. The study found that the ExplaNet significantly improved students' comprehension and retention of difficult concepts.

Kern, et al (2008), explained that Network-Based Language Teaching

(NBLT) as the pedagogical use of computers connected in either local or global networks, allowing one-to-one, one-to-many, and many-to-many communication. It explores the learners' responses when they are brought together with texts, media, and other speakers of the language in computer-mediated contexts of interaction. The study proposed that NBLT will remain a critical area for teaching and research since NBLT provides opportunities for students in read, write, communicate, and construct knowledge in a second or foreign language in ways that are both new and unexplored.

Referring to the previous research, Rukmini and Abdillah (2013) investigated the development of written Englishweb-based materials for junior high school students. The research was conducted to find the solution of some problems related to online material sources for English study. The problems they were trying to solve were the lack of online written materials for seventh grade students outside the school or during day-off; kinds of online materials the seventh graders needed; how was online materials developed; how effective was the online materials, and what were the advantages and disadvantages of the online materials. The Englishweb-based materials were developed after they observed the obtainable materials and interviewed the teachers for their analysis, then, the products were validated by experts, tested and given questionnaires. The research found that the product of Englishweb-materials they developed was considered effective after administering some steps in educational research and development proposed by Borg and Gall on 24 students of Junior High School 21 Semarang.

Furthermore, many studies have been conducted to investigate the use of hybrid CMCL in ESL/EFL context. The study done by Ghauth and Abdullah (2010) measured the learner's performance in e-learning recommender systems. The study aimed to investigate the learner's outcomes in e-learning recommender system, a piece of software that helps users to identify the most interesting and relevant learning items from a large number of items. They suggested that recommender systems could be based on collaborative filtering (by user ratings), content-based filtering (by keywords), and hybrid filtering (by both collaborative and content-based filtering). They proposed a new e-learning recommender system framework uses content-based filtering and good learners' ratings to recommend learning materials, and to increase the student's performance. The findings claimed that the proposed e-learning recommender system produced a significantly better result in increasing learner's performance.

Additionally, Nguyen (2011) examined Vietnamese learners' reflections on and perceptions of the application of Computer Mediated Communication (CMC) into collaborative learning. Several inferences were drawn from the results. The majority of participants enjoyed the technology-enhanced class in general. There were approximately equal numbers of students who preferred synchronous CMC, asynchronous CMC, or a combination of both. The students reported that the course helped improve their computer skills and collaborative experience, while they remained sceptical about improvements to their English language skills. More involvement in learning was observed during and after the course. In addition, the participants expressed confidence that they would attend

similar courses in future and were willing to recommend this technologyembedded course to the next generations of students.

The more current study conducted by Ang. T & Yunus. M (2018) also found that the advantages of blended learning are various to increase Sabah's students reading ability in English literature. It clearly shows a lot more positive impact towards students reading skills and teacher teaching technique, especially in the effort to increase students reading skills

CMCL is also proven to be one of the effective methods in enhancing students' writing competence. Li (2000) for example, analyzed 22 ESL students' email writing (132 pieces), he found that Students tended to produce complex sentences and use a variety of words. Furthermore, Sharadgah (2014) highlightened the great impact of using Internet-based writing program for students' writing enhancement. This research study was aimed to investigate the effectiveness of writing program on improving Salman bin Abdul Aziz University students' critical thinking skills after participating in a seven-week task-treatment using an Internet-based writing program (IBWP) developed by the researcher. The subjects were 98 male students enrolled in a writing course during the first semester of the academic year 2013/2014. The effectiveness of the program was measured by a holistic critical thinking scoring rubric developed by Facione and Facione (1990). The subjects were randomly assigned into two groups: an experimental was taught writing via the Internet-based writing program IBW, and a control group was taught through the ordinary method. The findings of the study revealed that EFL students in the experimental group who used the IBWP showed

greater improvement in their critical thinking skills than did the EFL students in the control group who used the ordinary method.

In line with Saradgah, Mujiyanto and Hermasari (2015) highlighted the use of online brainwriting and brainstorming technique in teaching writing to students with different learning strategies. This research study was aimed to investigate the effectiveness of online brainwriting compared to brainstorming as prewriting strategies in improving the writing skills of students with high and low frequency of LLS. The data was collected from 60 college students majoring in Dance Education by carrying out 2 x 2 factorial design of experimental research. The students' high or low frequency of LLS was determined using SILL by Oxford (1990). The subjects were randomly assigned into two groups; A as an experimental was taught using online brainwriting technique and B as a control group was taught through brainstorming technique. After in depth analysis using ANOVA, the findings of the study revealed that online brainwriting is proven to be significant for both high and low frequency of LLS students with ρ =0.000. Meanwhile, brainstorming, on the other side, is only significant for high frequency of LLS students with ρ =0.000, and is proven insignificant for low frequency of LLS students with ρ =0.039.

Li (2014) also did a study on small group interactions in Wiki-Based collaborative writing in the EAP context. The study investigated dynamic group interactions of 29 ESL graduate students in wiki-based collaborative writing tasks in English for Academic Purposes (EAP) course at a southeastern public research university in the U.S. The results revealed that the four small groups demonstrated

four characteristic patterns of interaction; Collective-Active/withdrawn; Dominant/defensive-Collaborative; Expert/novice) and Cooperating in parallel.

In addition, Bar-Natan, et al (2000) also did a study which examined writing development and perception about writing of Arab and Jewish elementary school children in Israel within each of the above learning environments and within an integrated method of CL-CMC. Each of the three methods was carefully designed and implemented based on the theoretical model of the six "mirrors" of the classroom (Hertz-Lazarowitz, 1992). The central research question was to find the differential contribution of each of these learning environments in children's writing development. Research was conducted within 20 fifth and sixth grade classrooms in six schools, three Arab and three Jewish. Data were collected from 599 students (210 Jewish, 389 Arab) twice in the school year, and multivariate repeated measures analysis was conducted on this data. The CL-CMC learning environment created the larger gains with time in scores for the students. In the CL only, the scores decreased slightly; in the CMC no gains were found in all of the measures. The important finding is that CL-CMC equalized and enriched significantly Arabs and girls groups which usually gain less. In addition, the contribution of CL-CMC to the affective domains of children's writing is prominent.

The same study in Israil has also done by Peretz (2005) to describe a graduate-level scientific/academic writing course for non-native speakers (NNS) of English at Ben-Gurion University of the Negev (BGU), Israel, which is taught in a technology-enhanced or blended learning environment. The use and

integration of electronic discourses, such as email and PowerPoint, on-screen marking techniques, and submission of written assignments and writing consultancies by email, and asynchronous online discussion forums are described. Features of the High Learn course-supporting WEB site, which enable the integration of discussion forums into the writing course, are explained. Results of teacher-initiated student evaluations and advantages and dilemmas of teaching scientific/academic writing in the digital age are discussed.

Lee (2004) also conducted the study on a network-based collaborative project, conducted in the US, between native speakers of Spanish. The finding shows that the non-native speakers believed that the online interaction helped them to improve their writing skills. They were also scaffolded by the native speakers through online discussion.

In addition, Chang (2009) conducted a study on peer review through Synchronous Computer-Mediated Communication (SCMC) and Asynchronous Computer-Mediated Communication (ACMC) modes. The subjects of the study were 30 English EFL undergraduate students' engagement in peer review activities, commenting types made by reviewers, and students' perceptions of peer review via SCMC and ACMC modes. The findings indicated that peer review through both online modes result in students' high engagement and similar commenting types. Meanwhile, Al-Jarf (2004) conducted the research in Saudi for 113 Saudi female freshmen; the participants were divided into two groups: one underwent normal writing course (the control group); another underwent webbased writing course. The result show that the experimental group scored better in

the post-test. They also improved their attitudes towards writing.

In the same way, many researchers have found that hybrid CMCL is effective learning strategy in ESL/EFL context especially in blended learning environment. Christensen, et al (2013) analyzed blended learning through the lens of disruptive innovation theory to help people anticipate and plan for the likely effects of blended learning on the classrooms of today and schools of tomorrow combining online learning and brick-and-mortar schools. Pardede (2012), further, investigated the implementation of blended learning which combine face-to-face and Information and Communication Technology (ICT) application in education. The study aimed to review the ideas, practices and empirical information about the nature of blended learning and especially focuses on Computer Assisted Language Learning (CALL) which specially used English Language Teaching. The findings suggested that blended learning could be effectively used to improve students' competence in language learning by the use of recording devices, video players, newspapers and language laboratories. Blended learning also offer wider varieties of learning activities particularly group work, pair work, collaborative learning and independent learning to engage the students in communication language practices. He further argued that the use of online element in blended learning enables the EFL students to use the foreign language in real activities such as email, chatting, status, etc.

Aji (2017) also did a research about the implementation of blended learning in teaching listening to university students. The subjects of the study were 28 students of Listening class of Nusantara PGRI University. The data were

collected from interviews, observations and questionnaire. The findings revealed that the students' listening comprehension proved through the implementation of blended learning. He suggested that blended learning offers an alternative ways for the educators to create a teaching-learning process become more effective and brought positive outcomes for the students.

Gleason (2013) found that the role of technology in the third year blended Spanish writing and grammar courses can develop three aspect of the languagecontent gap of the participants in this course. Firstly, technology played a special role in the blended Spanish 301 courses. As the first time that certain tools were incorporated into this course, the teacher and her students were particularly reflective and forthcoming about technology's affordances and limitations for Spanish language learning at the 300-level. Different from many blended courses, Spanish 301 had the benefit of integrating two types of technology (Netsupport and Google Docs) to foment connections and communication between the teacher and her students. The teacher was present as students used Google Docs and she harnessed it in ways that brought her personally closer to their experience. This was also evident in the way she used Netsupport to share students' online grammar practice with the rest of the class as well as in the ways in which she used f2f oral and written feedback in Google Docs while students were working on their compositions. Secondly, it has the ability to lighten teacher and students' burdens. Since one of the teacher's main priorities was to alleviate some of the stress and heavy workload that is involved in teaching the third-year FL composition course such as the heavy grading regimen, these technologies were

used to provide real-time feedback to students allowing the teacher to minimize the amount of papers that she was taking home to grade. Thirdly, participants saw the role of Netsupport technology and Google Docs as a motivating force. Technology's role as a motivator was something both students and the teacher admitted on several occasions during interviews. So, technology can offer the Academic language development in third-year Spanish writing and grammar courses.

Some studies were also conducted to find out the advantages of using CMCL has also done by some researchers (Zitter & Hoeve, 2012; Hiltz, et al, 1997; Warschauer, 1996; Untung ,2013; Isti'anah, 2017; Mudra, 2018; Ratnawati & Tarwana. W, 2018).

Zitter and Hoeve (2012), they did a study on hybrid learning environments: merging learning and work processes to facilitate knowledge integration and transitions implemented on vocational education in the Netherlands. The study grounded from the problematic nature of the transition between education and the workplace which require the learners to develop an integrated knowledge base. The study proposed a design approach and shifting the educational focus of attention from individual learners to learning environments by establishing horizontal connections between schools and the workplace. The agency perspective, the spatial perspective, the temporal perspective, and the instrumental perspective are the framework of four coherent perspectives they proposed.

Hiltz, et al (1997) measured the effectiveness of collaborative learning in

ALN featuring on-line interaction among students using a multi-measure approach. The study aimed to seek the different outcomes between traditional classroom-based university courses and courses delivered via ALN attributing extensive on-line interaction among students. The results revealed that the outcomes of students who are actively involved in collaborative (group) learning on-line can be as good as or better than those for traditional classes. The study also found that when students are simply receiving posted material and sending back individual work, the results are poorer than in traditional classrooms.

Warschauer (1996) also found that computer-mediated conversation is syntactically more complex and lexically denser than face-to-face conversation through electronic discussion in second language classroom. Kramsch, A'ness, and Larn (2000) also conducted two cases of CMC learning contexts: (1) the construction of a CD-ROM and (2) the use of Internet relay chat by an ESL learner. Based on their finding, a communicative approach based on the use of authentic texts and on the desire to make the learners author their own words was altered by the physical properties of the electronic medium and the students' engagement with it changed.

Moreover, Untung (2013) suggested that learning through social network sites can improve students' speaking competence. He conducted an experimental study to investigate whether English learning through social network sites is effective in enhancing the students' speaking competence. The use of speech acts in computer-mediated communication, specifically in the status messages of the social network site Facebook, to communicate in both a mass and an interpersonal

medium were examined. The data was collected from a total of 352 status messages created by 20 participants, which were captured 3 times daily over 30 consecutive days. He revealed that status messages were most frequently constructed with assertive speech acts, followed by directives through Content Analysis. He also uncovered that there was a significant difference between the students' speaking competence by using social network sites and those who are taught by using a conventional approach in Factorial Analysis of Variance. He also proposed that there was a significant difference in achievement between the high internet access students and the low internet access ones based on the paired sample t-test result.

According to Isti'anah (2017) who did her research in the field of grammar, in the end of the semester, most students found that online activities help them comprehend and practice the materials. Students' reflective journals also revealed that blended learning was able to improve their understanding and interest in learning English grammar. Meanwhile, Mudra (2018) explored EFL learners' views toward Blended English language learning as a course. He found that BL has some benefits for the learners such as collaborative delivery method, more reading materials, useful computer programs, helpful social network application, and more valuable information. Ratnawati & Tarwana. W (2018) investigated blended learning effects towards students' accomplishment in terms of participants' literacies in terms of reading and writing score and their motivation of attending the model of learning. The finding indicates that the participants had got progress in both writing and reading tests, evenly positive

perspectives also expressed toward applying blended learning in classroom practices. The use of blended learning can enhance students' motivation and achievement

Despite its effectiveness in improving learner's communication competence, CMCL is also proven to be effective learning strategy to improve students' vocabulary. Yudhiantara and Saehu (2017) investigated the use of Mobile-Assisted Language Learning (MALL) in Indonesian Islamic Higher Education. The study was conducted from the fact that though the use of MALL in EFL context had been widely discussed, little study has been conducted to discuss its effect in Indonesian Islamic Higher education. The objectives of the research were to explore how the students use their mobile phone to learn English Monolingual Dictionary (EMD) application and how the students use their mobile phone to support English language learning. They observed 40 students of UIN Sunan Gunung Djati Bandung who were engage in using mobile phone for learning EMD application. The findings showed that students were able to use EMD application in English language learning (ELL) and demonstrated skill in operating EMD application particularly in pronunciation, grammar and meaning. In addition, he argues that students can use the features of EMD application to maximize their language learning such as used audio feature to operate EMD from mobile phone to boost listening skill and used their mobile phone to record video project presenting their vocabulary learning.

HCMCL is also claimed as the effective learning strategy in improving learner's social integration and awareness. Ha and Kim (2014) stated that many

educators are gravitating towards the use of learning management systems (LMSs), such as Blackboard, Daedalus Interchange, and Moodle, for managing courses and enhancing student learning. There is thus a growing need to examine second language (L2) learners' academic socialization through their participation in computer-mediated academic literacy practices. The study contributes to the growing body of e-learning research to illustrate and explain the complex and dynamic ways that non-native novice students negotiated their academic participation in their graduate class.

Supporting the above argument, Dollar (2003) conducted an experimental study to investigate whether computer-mediated communication have an impact on the academic and social integration of community college students as measured by the CCSEQ (The Community College Student Experiences Questionnaire) or not. The overall approach was to conduct a pretest-posttest control-group experimental study using CMC as the experimental treatment. The Community College Student Experiences Questionnaire (CCSEQ) was given to collect data that were used to measure the academic and social integration of the control and experimental groups. After an in-depth analysis of data using descriptive statistics, factor analysis, and ANCOVA, the finding of this study was that there is statistically significant difference between the control and experimental groups on their academic and social integrations as measured by the CCSEQ. In other words, CMC have a positive impact on the integrations of community college students.

Online interaction is also effective to enhance students' awareness. It

enables them to interact with their peers across nation and shared ideas as well as information. It can help them to develop their communication competence, critical thinking as well as cross cultural awareness. This study was found by Lay and Ping (1991), who conducted the research for two groups of teenage students; in Singapore and Quebec, the participants exchanged ideas and opinions on bulletin boards, and the results shows that the project developed the students' grasp of technology, improved their commands of English, gave them a sense of pride in their own work, and enlarged their awareness of themselves as members of an international, global community.

Chapman (1997) also conducted six students in Australia corresponded with six students at Nanzan University, Japan, for about 6 months. The finding of the study said that CMC has potentials to foster sociolinguistics competences of the students. Meanwhile, Smith (2004) did the research for 24 intermediate-level non-native speakers of English communicated with each other synchronously which has result that negotiated interaction offers by CMC enhanced lexical acquisition.

Additionally, Gray and Stockwell (1998) conducted the Eighteen Australian undergraduate students at Griffith University communicated with nineteen Japanese undergraduate students at Waseda University, Japan; it was found that CMC had the potential to enhance target language acquisition and intercultural awareness. Similarly, Kosaki (2004) analyzed the real-time and delayed chats between Australian and Japanese students; it was found that both the Australian and the Japanese students raised their awareness of their own

language as well as their target language through their online exchanges.

Slightly different from the previous research, Hartanto (2017) and Mustikasari (2017) focused on the implementation and development of Massive Open Online Course (MOOC) in Indonesian language learning context. Hartanto (2017) analyzed the English teacher's responses on Indonesian Massive Open Online Course (IMOOC) as the technology for autonomous learning. This qualitative research was conducted to prove the effectiveness of IMOOC to facilitate English teachers in Indonesia to improve their English teaching skills and explore various potential digital tools to help promote autonomous learning in their language classrooms. The data was collected from qualitative survey through questionnaires on Google Form of 17 Indonesian English teachers in Central Java. The finding of the research shows that the Indonesian MOOC is significant for English teachers to face the global era through their digital literary competence. The result proved that 100 % of the survey participants were interested in following the IMOOC and improving their career as English teachers, 90 % become autonomous learners, 86 % of the participant knew IMOOC and only 60 % of them had not followed IMOOCs and 70 % did not know the advantages of MOOC.

Mustikasari (2017) has also critically analyzed the development of Massive Open Online Course (MOOC) and its application in teaching Materials for *Madrasah* English Teachers. The objectives of the study were to recognize the textbooks or other teaching materials used by the *Madrasah* English teachers, to identify their obstacles in preparing the teaching materials, to analyze the teaching

materials which can be developed in MOOC, to analyze the teaching materials for MOOC which are related to the Indonesian curriculum, and to analyze their willingness of professional teaching development using MOOC. 3 English teachers of MTs Negeri Salatiga and 5 English teachers of MAN Salatiga were observed and interviewed as the subjects of the study. The findings showed that the textbooks from Ministry of Education (MOE), selected main handbooks, supplementary teaching materials from certain websites were used by *Madrasah* English teacher. The study also revealed that the obstacle of the *Madrasah* English teacher to prepare the teaching materials was the necessity of communicative competence as the main issue of content of textbook from MOE. The study suggested that authentic materials and characters building based-teaching materials were highly needed to be developed in MOOC in requirements of Indonesian curriculum. Unfortunately, the study revealed that the *Madrasah* English teacher had less interest to join MOOC.

It can be concluded from the review of previous studies above that the use of HCMCL brings more benefits comparing with its weaknesses. The use of HCMCL is effective method in improving learner's communication competence, increasing students' ability in vocabulary and speaking, raising intercultural awareness, also in building learner's social integration and awareness. Some considerations should be taken while involving technology in the classroom such as social presence, humanness aspect and socio cultural perspective of the learners.

2.1.3 Boosting Critical Thinking through Collaborative Learning and HCMCL

Collaborative Learning and Hybrid Computer Mediated Collaborative Learning is claimed effective not only in enhancing learners' language competence but also in fostering learners' critical thinking. Rezaei, Derakhshan, and Bagherkazemi (2011) conducted a study to sketch the concept of critical thinking as a viable cornerstone in language education. The study introduced typical features of critical thinkers, different standpoints on the teach-ability of the ability to think critically and a number of classroom techniques to foster learners' critical thinking. The study initiated that debates, media analyses, problem-solving tasks, self-assessment and peer-assessment are likely to foster critical thinking skills in language education.

Various language learning techniques and strategies had been applied to enhance students' critical thinking. Many researchers conducted the studies to investigate the influence of HCMCL in fostering learner's critical thinking (e.g, Areni & Syafitri, 2015; Farida & Margawati, 2014; Bharati & Ardianti, 2016; Rofi'i, Rukmini, and Hartono, 2014; Omar & Albakri, 2016; Widayanti, 2011; Aunurrahman, Hamied & Emilia, 2017; Wahyuni, 2014; Akindele, 2008; Haryati & Hidayati, 2017)

Areni and Syafitri (2015), for instance, discussed about how to develop teaching strategies that can foster students' critical thinking in writing book reviews and discussed the concept of critical thinking for undergraduate students, its implementation as well as its assessment in teaching writing book reviews. In

conducting their research, they did classroom action research by implementing cooperative learning strategies Team-Pair-Solo and Round Robin Brainstorming to help the students to improve their critical thinking. Critical thinking guideline, rubric of assessment and observation sheet was used as their research instrument. The objects of the study were 24 students of 5th semester of English Department of Semarang State University. The data was categorized based on Critical Thinking Types. The finding of the result showed almost all students were competent in using the critical thinking to write book reviews. Cooperative learning proved to be one of the effective learning methods in enhancing students' critical thinking.

In line with them, Farida and Margawati (2014) used writing workshop to help the students develop their critical thinking. The study discussed five components of writing workshop suggested by Calkins (1994) and its application in enhancing students' creative writing especially travel writing. The study was started from the difficulties facing by the students in exploring and organizing the ideas they are supposed to write. The study was then intended to discuss and describe the application of writing workshop in enhancing students' writing skill through selected genre which requires visual and non visual imagination; travel writing. The five components of writing workshop proposed by Calkins; mini lesson, work time, peer conferring and/or response groups, share sessions, and publication celebration is applied in writing class for methodological purposes. The finding suggested that writing workshop could be applied as one of the method in enhancing students' creative thinking, especially in producing creative

writing. They also suggested that, although writing workshop could be one of effective method in enhancing students' creative thinking, the practice should be given regularly.

Congruent with the aforementioned studies, Bharati and Ardianti (2016) also did a study on the use of writing workshop to improve students' participation in learning argumentative writing. The dynamics of students' participation in learning argumentative writing by implementing writing workshop was investigated in this study as its main constrain. The data were collected from 32 students of a natural science class of eleventh graders of SMA N 1 Randublatung for about six weeks. Questionnaires, observation and students' works were collected for the need of analysis. The study exposed that students' participation in learning argumentative writing improved proved by their participation on oral and written assessment. The finding also revealed that students become more active in writing collaboratively with their peers. Hence, this study supported many previous arguments stating that cooperative and collaborative learning can enhance students' competence and critical thinking.

Meanwhile, Rofi'i, Rukmini, and Hartono (2014) investigated the use of Mind Mapping Technique to improve students' motivation in writing descriptive texts. The Classroom Action Research was administered to find out the problems faced by the students in the process of writing descriptive texts, to investigate the improvement of the students' motivation in writing descriptive texts through the Mind Mapping Technique in each cycle, to describe the improvement of students' skill in writing descriptive texts after participating in the teaching learning process

by using the Mind Mapping Technique. The results of the study suggested that, the implementation of the Mind Mapping Technique in the teaching of writing descriptive text could improve students' motivation in developing their critical thinking affirmed by their production of the descriptive texts.

In addition, Omar and Albakri (2016) did a study to investigate the implementation of Thinking Maps as part of Malaysian education program called I-Think to Promote Critical Thinking through the Teaching of Literature in the ESL Context. As they mentioned, Malaysian education system has put greater emphasis to prepare their students to be a critical thinker. Hence, the I-think program was invented to promote critical thinking which consist of eight cognitive concepts. The objective of the study was to determine whether the teachers' implementation of the Thinking maps promoted critical thinking during the teaching of Literature in the ESL classroom or not. The findings revealed that the students were able to think critically through the use of the thinking maps during their literature lessons. The findings also showed that the teachers also employed the Reader-Response strategies to complement the thinking maps in promoting critical thinking in the teaching of literature.

Furthermore, Widayanti (2011) did a classroom action research to seek whether Task-Based Approach is effective to enhance students' writing skill or not. The subjects of the study were 21 students of Journalism Class of semester VI English Letters, Faculty of Languages and Arts, Semarang State University. The data was collected by using descriptive analysis and collected based on observations, notes, interview and questioner. The finding affirmed that Task-

Based approach could enhance students' writing skill.

Other researcher is Wahyuni (2014) who did a study to develop students' critical thinking in academic and scientific writing. She investigated the implementation of Project-Based Learning (PBL) methods to direct students in writing a research proposal in Linguistic and Educational Research Classroom. The subjects were 30 students of the sixth semester of the English Department, Semarang State University, 2012-2013 academic year. The finding suggested that equipping students with skills and experiences in writing research proposal is significantly important and PBL was proved to be one of the learning methods that can help students to build their critical analysis in conducting research proposal. The result of the study was also supported by the research conducted by Aunurrahman, Hamied and Emilia (2017). They explored the tertiary EFL students' academic writing competencies which focus on critical thinking. The data were collected from the student's text from thirty-six first-year tertiary EFL students from a regular class of a private university in Pontianak, West Kalimantan, Indonesia. The results showed that the students have little control over the schematic structure and linguistic features of an argumentative writing as well as have some limitations on their critical thinking capacity. They suggested cooperative learning could be implemented to help the students overcome their difficulties and develop their academic writing and critical thinking capacity.

In the same way, Akindele (2008) also examined the literature review section of 30 completed Master's theses from the University of Botswana to seek students' critical thinking and the voice in their writing. The study found that a

number of students were unable to shed light on any gaps in previous research, resolve conflicts amongst seemingly contradictory previous research; show insight and an awareness of differing arguments; link the review at all times to the rationale and purpose of their study.

Haryati and Hidayati (2017) did a study focuses on Hoax News to promote students' critical thinking in critical reading class. They argued that the ability to think critically is very essential for undergraduate students in the global era to reinforce their analysis ability and providing alternative solution in facing the modern issues. The study was conducted to investigate the implementation of using hoax news as the reading materials to improve the students' critical thinking and how far it can enhance students' critical thinking. The participants of this classroom action research were 31 undergraduate students of Sebelas Maret University joining critical reading class. The data were collected through observation, document analysis and test. The essay test was administered as the instrument to assess the students' critical thinking. After in-depth analysis using the model of the Holistic Critical Thinking Scoring Rubric (HCTSR), the study revealed that teaching reading using hoax news can significantly improve the students' critical thinking followed by the development of interpretation, analysis and identification ability. The study also claimed that critical thinking can build up students' high analysis and deep interpretation toward certain texts.

The study on critical thinking is not only focus on learners' language competence but also its relationship across nation. Paton (2011) undertook a study on postgraduate and undergraduate students in three major universities in China

and one in India to find their perceptions of critical thinking and English as an academic lingua franca. The purpose of the study mainly to reject the arguments proposed by many scholars that critical thinking is incompatible with Asian cultural attitudes. The study was seen from history and philosophy of science perspective. The findings revealed that there is a significant level of understanding of critical thinking and its relationship to English as an academic lingua franca of Asian students. Paton argued that the depth and variety of thought shown in the students' responses indicate a remarkable level of critical thinking and the results reinforce the argument that critical thinking is part of the framework of humanity.

In line with Paton, Rashid and Hashim (2008) also examined the critical thinking ability of Malaysian undergraduates and its relationship to language proficiency. The subjects of the study were 280 Malaysian undergraduate students. The data were collected by administering The Bahasa Malaysia version of the Cornell Critical Thinking Test (CCTT) Level X. The results of the study indicated that the critical thinking ability of the Malaysian undergraduates was lower than their American counterparts. The study also revealed that there is significant correlations were found between their critical thinking ability and English language proficiency.

To find out the results on whether the implementation of CL or hybrid CMCL is able to foster learners' critical thinking or not, Al Zahrani and Elyas (2017) described the challenges and opportunities in the implementation of critical thinking in EFL Saudi Arabia context. They argued that CT is one of the most essential skills which students should have to achieve their success in their lifes.

The concept of CT from Islamic versus CT from Western perspectives, the possible challenges or barriers to CT were discussed, and whether religious or pedagogical, in the Saudi context are analyzed and refuted. They asserted that CT is not only considered a privilege limited to Western contexts as a cultural norm but also in Islamic teaching because thinking is even elevated to the status of an Islamic religious duty or obligation according to the Holy Quran instructions. They professed that Islam has encouraged thinking as a path for recognizing the Almighty's existence and as a way to recognize His powers and wisdom. Hence, CT is required to analyze, synthesize reflect and observe His creations. The results showed that the students' ability, teaching methods and classroom structure are among the obstacles of teaching CT in the Saudi EFL context. Moreover, the Saudi society still considers questioning people in authority as disrespectful. The school community was also found to be another obstacle in this study because the school administrations and supervisors do not support CT. Other obstacles include pre-service teachers' preparation programs and in-service teacher professional programs which neglect CT instruction. The findings also revealed that the current curriculum is not appropriate to develop CT and stresses instead memorizing facts.

The majority of the results of the studies above showed that the use of HCMCL can develop students' critical thinking. However, the study on critical thinking is not only focus on learners' language competence but also its relation across nation. Some efforts should be done by the teachers to cope with the challenges faced related with the socio cultural barriers, affective, cognitive and

psychomotor aspect of learners, and teachers' preparation about the materials.

2.1.4 Involving the Context of Ecological Perspective in HCMCL

HCMCL also involves the context of ecological perspective including the sociocultural history. Many studies have been conducted to view the influence of ecological perspective in teaching-learning context (Park, 2015; Leach, 2010; Lam, 2010; Nystrand, Gamoran & Carbonaro, 1998; Raleigh, 2013; Jeong So, 2008; Raleigh, 2013; and Pinnow, 2008).

The first study was conducted by Park (2015) who claimed that understanding synchronousc-mediated classroom discussion through cultural-historical activity theory is needed. He examined graduate students' discourse practices in classroom text-based synchronous computer-mediated discussions (SCMD). Cultural historical activity theory is the primary theoretical lens through which the data are analyzed. Based on Engeström's (1987), activity system model among the various theoretical positions or perspectives of activity theorists has guided the overall process of the study, especially having the researcher focus on the identification and description of the model's six key elements: subject, object, tool, community, rule, and division of labor. Several emerging themes were identified: instead of a single utterance, a topical pair needs to be investigated as a unit of analysis in SCMD research; a collective unit of actions emerges through the discourse activity; and, finally, an ecological view is needed to understand an activity system as a whole.

Leach (2010) argued that culture of support is needed in HCMCL. In

order to assess the pedagogical value of blended learning in a university-level first year composition (FYC) environment, it is necessary to view the environment through a critical lens and adequately train faculty in the need for and use of the features of the learning management software (LMS). The setting for this study is the Humanities and Communication Dept. of Florida Institute of Technology, a private university on Florida's east coast, consisting of around 6000 students. He investigated the various pedagogical and theoretical issues of incorporating blended learning into the FYC environment; he critically examines the issues involved in implementing the program. He employs a blended research method to join the tracks of implementing a blended learning program and developing a culture of support together in the Humanities and Communication Department of Florida Tech. In examining program implementation, He uses a combination of institutional critique, as advanced by Porter et al., together with an "ecological" methodology, as outlined by Nardi and O'Day. In examining the feasibility of creating a culture of support through the design of a faculty workshop, He mainly uses Richard Selfe's methodology, although elements of the previous two methods operate as well. The results of the study provide a means by which faculty members can experience and realize the benefits, while avoiding the pitfalls, of implementing CMC into an f2f classroom and provide an action plan for other researchers to utilize in their own educational settings.

Lam (2010) also conducted the study on exploring the role of the sociocultural context and the development level in determining the best way in which the educational needs of children with special needs can be met. Recognizing that the effectiveness of different special education services may depend on the sociocultural context as well as the development level, this literature review seeks to identify the ideal method of treating children with disabilities in developed and developing countries. By assessing the global theoretical approaches behind special education, the tenets of inclusive education, the role of the socio-cultural context and the significance of development on the success of inclusive education, she found that the needs of special education children in developing countries are best met through positive community attitudes and the development of vocational skills. In comparison, children with disabilities in the United States are served most effectively through positive community attitudes and inclusive school cultures.

The next study was also done by Nystrand, Gamoran and Carbonaro (1998), they did a study on classroom discourse and its effects on writing in High School English and Social Studies seen from ecology of learning. They argued that an ecological framework for studying the relation between classroom discourse and writing is needed, since only a few studies discusses about it. The framework emphasizes the reciprocal roles of teachers and students, and focuses on the types of questions teachers and students ask as indicators of classroom discourse. The framework is assessed with data on discourse and writing in 54 ninth-grade English classes and 48 ninth-grade social studies classes. In both subjects, the authors find that classroom discourse and writing activities tend to proceed independently of one another. Regression analyzes show that student writing benefits from classroom talk, especially when teachers ask "authentic

questions" (questions for which teachers are not looking for particular answers) and incorporate student responses into the questions they pose (known as "uptake"). Students' writing are also enhanced by instructional coherence among reading, writing, and classroom talk. Students who are required to write more frequently exhibit better writing in English but worse performance in social studies, a finding that may be explained by the different purposes of writing in the two subjects. Social studies teachers used writing mainly as a check on reading, whereas English teachers paid more attention to the writing process.

Besides, Raleigh (2013), Jeong So (2008), Raleigh (2013) and Pinnow (2008) conducted the research in Macedonia and U.S with different background of participants. Raleigh examined an ecological perspective of the phenomenon of learning Macedonian informally as reported by the learners themselves through interviews. Eleven participants from Albania, Canada, Greece, Hungary, Macedonia, Russia, and the United States described how their learning context impacted their study through self-instruction with online resources (n=5) and with the additional help from tutors (n=6). The study results were presented through the lenses of Ecological Systems theory and Learner-Context Interface theory. Most of the participants in the study reported support, albeit limited, for their Macedonian language learning and maintenance in their microsystem, as well as through Internet resources in their exosystem, whereas their macrosystem exerted a negative impact upon their language study. Most participants stated that their biggest obstacle was finding opportunities to practice the language and most participants were open to the remedy of practicing in virtual learning

communities. All the participants used online means to search for resources, most were comfortable using online materials, and they considered them effective. In addition, all of the participants were simultaneously using multiple resources, such as Web sites which stream Macedonian content (news, movies, music, and etextbooks from Macedonia), Web sites which explain Macedonian grammar and vocabulary (such as the recruitment site for the study, the Macedonian Language E-Learning Center), online dictionaries and Google translate, Facebook, Skype, radio, online flashcards, and tutoring.

Meanwhile, Jeong So, (2008) investigated the students' perceptions of collaborative learning, social presence and satisfaction in a blended learning environment. The study aimed to examine the relationship of those three variables and identified the critical factors related to them. The study was conducted on 48 graduate students who took a blended-format course in health education and worked on a collaborative group project related to the development of a comprehensive HIV-AIDS prevention plan. The researchers administered Student Perception Questionnaire and face to- face interviews to collect the data. The results of the study indicated positive relationship between student perceptions of collaborative learning with the perceptions of social presence and satisfaction. They argued that the students who are engage in collaborative learning tend to be more satisfied with their distance course. The study also proposed that course structure, emotional support, and communication medium were critical factors associated with student perceptions of collaborative learning, social presence, and satisfaction.

In the same line, Pinnow (2008) also conducted a study about an Ecological Approach to Latino Adolescent English Language learners and Online Discourse Communities, Using Conversation Analysis (CA) and Multimodal Analysis (MMA), this ecological study examined how semiotic modes were employed at an institutional and individual level in order to affect student beliefs about issues of nationalism, culture, and patriotism. The study examined how adolescent Latino/a English Language Learners (ELLs) at two separate middle schools in the Southeastern United States negotiated the affordances of an electronic environment as they wrote in the target language (TL) of English to one another online. The study particularly investigated how the interactions and metalanguage around online posts affected the second language (L2) composition process. Data were collected using participant observation methods over a oneyear period, digital video and audio recordings of participant interactions, digital images, archival, and interview data. Participant talk, modal communication, and interviews were transcribed and analyzed using CA and MMA methods. Using ecological theory, social semiotic analysis, and visual cultural studies the analysis of the school ecology showed how nation-state ideologies were transmitted through semiotic signification systems creating a specific cultural and political ecology through the use of school banners, signs, dress code, colors, and other regalia. Using social semiotic theory and system functional linguistics the analysis of participant meta-language around the L2 composition of online posts revealed how transnational ELLs resisted the hegemonic stance sanctioned by the school and posited through teacher-student interactions. Analysis also showed the

importance of maintaining tacit approval of one bilingual, technological proficient, Latino student who acted as unofficial peer- and teacher liaison in navigating classroom and technological discourses. Finally, the findings for this study had significant implications on issues of technological access and the school's role in bridging the digital divide for Latino ELLs, the need for more nuanced paradigm shift in the face of transnational ELLs entering U.S. public schools, and the role of semiotic signification systems in the intentional shaping of student beliefs in regard to societal, national, and cultural ideologies.

All of the above researches are preceded by the study conducted by Lier in 2004 and in 2008. In 2004, he explored the principles of a semiotic, ecological and socio-cultural approach to language learning, and the practical consequences for class-room teaching and learning. He explained that semiotic and ecological view of language learning encompasses physical, social and symbolic context as the central principle of teaching and learning. Those principle are grounded from the three basic perspectives; Ecological, refers to that activity in a meaningful environment which generates the activity and subsequent activities; semiotic, refers to that meanings rely on linguistic, other meaning resources of physical, social and symbolic kinds; and socio-cultural refers to that historical, cultural and social artifacts and activities provide tools and resources to mediate learning and action (Lier, 2004). The study also attributed that the approach emphasizes the development of the learner's social self and identity within the context of a democratic community of learning. He further suggested that there are two ways of teaching language to a democratic citizen; the micro perspective in which the

education of democratic citizens in a democratic society and the micro perspective that is the promotion of democratic learning processes in the classroom. He also proposed four basic perception organizing constructs of ecology namely; Perception (multimodal, multisensory), action (activity), relation (self and identity), and quality (of educational experience). In 2008, he conducted a study on social-interactive learning from ecological perspective in language learning. He suggested that the work of Vygotsky and Bakhtin illustrates an ecological perspective on cognition, learning and language. He started his study based on the three premises arguments on ecological approach; that there is scientific perspective behind the diversity in language learning theories and teaching procedures; that learning takes place in the brain; that activity and interaction, or in general the contexts in which learning takes place, relate to learning in indirect ways. He argued that ecological approach in language learning challenges those premises. He claimed that ecological approach shifts the emphasis from scientific reductionism to the notion of emergence; that not all of cognition and learning can be explained in terms of processes that go on inside the head; and ecological approach asserts that the perceptual and social activity of the learner are central to an understanding of learning.

It then followed by Kramsch (2007) who did a study which focus on the ecological perspective in foreign language education based on complexity theory proposed by Kramsch and Whiteside. The study was conducted to explain some of the major tenets of complexity theory and analyze the transcription among multilingual individuals in multilingual and multicultural setting. He argued that

an individual is not unitary but multiple, thus the language acquisition and the language use are determined and correlated to whom he talk, in what situation and in what context. In other word, ecological perspective enables the researcher to investigate this plurality. He also argued that an ecological model language use occur in multiple timescales with layer simultaneity. In ecological theory, the meaning can emerge as the result of developing language simultaneously. Ecological theory also sees the everyday phenomenon and the language use as the unfinalizability of pattern, there is no final pattern because language keep growing and developing. The ecological analysis revealed that there is 'symbolic competence' that is the ability of every individual to use the language appropriately to someone else's language and to shape the very context in which the language is learned and used.

Some studies also emphasized on some issues related with the importance of ecological aspects used in hybrid CMCL. Mahmoodzadeh (2012) analyzed the concept of ecological challenges of second language teaching. The study was attempted to explore the ecological aspects of Second Language Teaching (SLT) Dilemma. He argued that Post-Method approach; In-Method approach; and Complexity approach were the major theoretical reactions dealing with ecological challenges in the rich historiography of language teaching during the last two decades.

Other researcher who concerned with the socio cultural issue is Jones and Issroff (2004), they concerned with affective issues in learning technologies in a collaborative context. Traditionally in learning there has been a division between

cognition and affect: where cognition is concerned with skills and processes such as thinking and problem-solving and affect with emotional areas such as motivation, attitudes, feelings. Affective issues have been viewed as somewhat problematic in studying learning although it is well known that learner attitude, motivation, and emotional state are very important, they have often been excluded from the frame of research, or studied separately from cognitive learning. This position is gradually changing and this paper considers what previous research has been conducted in these areas. It discusses the role of affective factors in three main areas of collaboration: in settings where learners are co-located, in on-line communities and to support and develop socio-emotional skills.

A study on ecological perspective in Indonesia is very rare, one of study the researcher found was conducted by Sumarwati and Anindyarini (2017); they argued that traditional ecological knowledge could be an approach to maintain customary knowledge. They did a study on the importance of Traditional Ecological Knowledge (TEK) taught in rural primary school. They argued that rural people are rich with traditional culture, folklore and ceremonies. The study was aimed to explore the perceptions of the use of TEK value to be implemented to the formal school and whether it can improve teaching-learning process or not. The data were collected from through interview from 5 participants (educators, officials and TEK experts) in Tawangmangu, Karanganyar, Indonesia. The data shows that TEK can boost student's teaching-learning process.

It is clearly seen from the studies above that ecological perspective should be considered as the principle of instructional design. In summary, it can be said that the studies presented above are all point in a similar direction saying that Hybrid CMCL is an effective learning strategy because it builds up student-student interactions and boost students' critical thinking. As the consequences, it has the potential to develop second/foreign language learning. However, none of the studies are emphasized on certain context of productive language skills of writing which is regarded as the most prominent factor contributing to the critical ability. It was why this study was conducted to analyze specifically on the potentials of students' critical thinking promoted in writing classroom context. Moreover, none of the studies involved ecological lens in English Language teaching especially in EFL context in Indonesia. To fill this gap, the researcher conducted a study of using HCMCL for promoting students' critical thinking viewed from ecological perspective.

2.2 Theoretical Framework

2.2.1 Critical Thinking in Language Learning

The term 'critical thinking', as Day (2003) notes, began to appear in TEFL literature in the 1990s. However, a discussion of aspects of critical thinking in language learning probably started earlier than that, in the late 1970s when the communicative approach was introduced to the field of English language teaching.

It has been claimed by Siegel (1988) that 'despite widespread recent interest in critical thinking in education, there is no clear agreement concerning the referent of the term' (p.5), but he mentions that the notion of critical thinking

has to be delineated with some precision for it to have significant impact on educational thinking and practice. Reviewing many definitions of critical thinking, Siegel (1988) identifies two rather different conceptions of critical thinking running through the related literature: the 'pure skills' (p.6) and the 'skills plus tendencies' (p.6) conceptions of critical thinking. According to Siegel, the 'pure skills' conception of critical thinking concentrates entirely upon a person's ability to assess correctly or evaluate certain sorts of statements. A person is a critical thinker, from this viewpoint, if she has the skills, abilities, or proficiencies necessary for the proper evaluation of statements. However, as Siegel (1988) illuminates, this conception is incomplete because it overlooks the salience of the actual utilization of these skills and abilities in a person's everyday life. The impact of this conception of critical thinking on the educational context could be less than promising if students drew upon critical thinking in tests only to get good grades in exams but not outside the testing context. Siegel (1988) argues that critical thinking needs something more than skills.

Siegel (1988) calls the second conception of critical thinking the 'skills plus tendencies' (p.6) conception, resting on the idea that —a critical thinker has either the skills or proficiencies necessary for the proper assessing of statements (and actions), and also the tendency to exercise those proficiencies in their ordinary statement- (and action-) assessing (p.6). Following activities this view, person is a critical thinker, if he or she is able and ready to think critically. As Siegel (1988) mentions this conception of critical thinking extends critical thinking beyond the skill of assessing statements and actions. There are also

significant dispositions, values and traits that a critical thinker needs to develop.

The second conception of critical thinking concerns the characterization not simply of a set of cognitive skills or criteria of reasoning assessment, but more importantly of a certain sort of person. To recognize this is to recognize the depth of the concept of critical thinking, and the importance of character, values and other moral dimensions of the concept. (Siegel, 1988, p. 10)

Siegel (1988) goes on to propose the two central components of this conceptualization of critical thinking that would be particularly prominent in educational contexts. The first one is the ability to assess reasons properly which is referred to as the reason assessment (p.23). The second components is critical the attitude or critical (p.23) component spirit of critical thinking the willingness, desire, stand disposition—to base one's actions and beliefs on reasons; that is to do reason assessment and be guided by the results of such assessment (p.23). Siegel asserts that 'both components are essential to the proper conceptualization of critical thinking, possession of which is essential for the achievement of critical thinking by a person. Some authors believe that these differences could partly be attributed to different terms used to offer an unequivocal definition of the concept of critical thinking. For example, Atkinson (1997) points out that a variety of definitions of critical thinking have been offered and that they differ to some degree. On the contrary, Davidson (1998) argues that if one scrutinizes these definitions, it is easy to notice large areas of overlap. The definitions are, in fact, often simply paraphrases of the same idea. They simply link critical thinking to rational judgment.

Pithers and Soden (2000) agree that critical thinking involves a number of abilities such as identifying a problem and the assumptions on which it is based, focusing the problem, analyzing, understanding and making use of inferences, inductive and deductive logic and judging the validity and reliability of assumptions and sources of data.

Critical thinking can also be described as the scientific method applied by ordinary people to the ordinary world (Schafersman, 1991). This is true since critical thinking is aligned with the well-known method of scientific investigation: a question is posed and a hypothesis formulated, germane data are sought and gathered, the hypothesis is further tested on the basis of the data, and conclusions are made at the end of the process. All the skills of scientific investigation map onto critical thinking abilities. So, critical thinking is scientific thinking.

Although all the above-mentioned definitions are different in scope and emphasis, they all place a premium on both the process and the outcome of learning. The ultimate objective for teaching critical thinking is to help students make correct judgments based on the careful weighing of available evidence. However, critical thinking is a very intricate endeavor. Buskist and Irons (2008) mention that such an enterprise requires students to learn several subtasks which include, among others:

- a. Developing a skeptical approach to problem solving and decision making;
- b. Breaking down problems into their simplest outcomes;
- c. Searching for evidence that both supports and refutes a given conclusion;
- d. Maintaining a vigilant attitude toward their personal bias, assumptions,

and values that may interfere with making an objective decision.

Still, some other researchers (Atkinson, 1998; Benesch, 1993) emphasize the social and democratic aspects of critical thinking. They believe that social practice is one of the indispensable components of critical thinking. Atkinson (1998) strongly explicates that critical thinking is cultural thinking. However, he is dubious as to whether it can be taken for granted, and he further mentions that language educators should embark upon its adoption judiciously and cautiously. He states four reasons for this speculation:

Critical thinking may be more on the order of a non-overt social practice than a well-defined and teachable pedagogical set of behaviors; (b) critical thinking can be and has been criticized for its exclusive and reductive character; (c) teaching thinking to nonnative speakers may be fraught with cultural problems; and, (d) once having been taught, thinking skills do not appear to transfer effectively beyond their narrow contexts of instruction. (Atkinson, 1998, p. 71)

In like manner, Fox expresses concerns as to the cultural load of the concept of critical thinking:

This thing we call "critical thinking" or "analysis" writing and thinking techniques— it is a voice, a stance, a relationship with texts and family members, friends, teachers, the media, even the history of one's country. This is because it is learned intuitively it is easy to recognize, like a face or a personality, but it is not so easily defined and is not at all simple to explain to someone who has been brought up differently. (Fox, 1994, p. 125)

Bennesch (1993) emphasizes that critical thinking is not simply higher order thinking; instead, it is a quest for the social, historical, and political roots of conventional knowledge and an orientation to transform learning and society. Conversely, Davidson (1998) casts doubt on the social dimension of critical thinking. He criticizes Atkinson (1998) arguing that critical thinking appears to be

something more universally relevant than just a social practice. If some cultures vary in their present ability to appropriate the tools of critical thinking, it is probably only a difference in the degree to which critical thinking is endured in certain parts of life. In any case, part of the task of the ESL/EFL teacher is to prepare students for the world outside their societies. There is even evidence that many students are ready for and in need of critical thinking abilities.

Viewing critical thinking as an inherently social and cultural concept, Oster (1989) concedes that social and cultural illuminations necessary to fully grasp its features. He admires the Western education system for its being open to a plurality of views, and encouraging originality and analysis, rather than memorization and quotation. He stipulates that if students are to enter an American or European university, they must be taught to think like the members of the target community, not to presume things to be universal when they are culture-sensitive, to feel free to express their thoughts and experiences and to find value in so doing. To these ends, he offers the study of the target language literature and its analysis as a safe and promising ground for developing critical thinking skills in foreign or second language learners. It is why I use the concept of critical thinking from Bennesch (1993) who start to define the critical thinking by stressing the socio cultural issue as perspective.

Critical thinking in the ELT literature may have emerged, at least partially, from the fact that there are now large numbers of international students studying in English speaking countries. In Australia (Thompson, 2002), as in North America and the United Kingdom (e.g. Briggs, 1999), international students need

a high level of language proficiency, but they also need to adjust their discourse style to suit their new situations and cultural contexts. They need to apply their critical thinking in new and different ways.

With more linguistic and rhetorical conventions to consider, the use of foreign language to communicate can be very challenging for students. English teachers often hear students complain that they know what to say but cannot put it into English. The students may have a wide vocabulary and theoretical knowledge but they may not be able to construct grammatically correct sentences. This seems to be primarily a linguistic problem. When students have to use foreign language to present their ideas and feelings, as they do when undertaking a number of the tasks that are required of them in an academic context, they need to use the ability to think critically as well as their linguistic skills. While developing their foreign language competency, students face tremendous challenges in exercising critical thinking in foreign language. From the socio-cultural perspective, when learners express their thoughts in foreign language, either through spoken or written language, they are not only translating their thoughts from L1 to L2, but also redefining their identities (Kramsch, 2002). Expressing one's critical thinking in foreign language may require that one adjust one's ways of saying things. In short, it requires both lexico-grammatical competence and socio-cultural competence, which is in accordance with the aims of CLT. In this case, socio cultural aspects have not been considered as the concerns of analyzing the students' development in learning. It is why to fill this gap; the researcher decided to discuss it in this study.

Meanwhile, three major research areas contribute to the assessment of the significance of critical thinking in language learning. These are communicative language teaching, meta-cognitive learning strategies, and L2/Foreign language writing research, especially in reference to academic writing.

1. Communicative Language Teaching (CLT)

The practice of communicative movement in ELT in Australia runs step by step from 1970s (Kerr, 1977) to Nunan in 1981s. Nunan described some characteristics of communication in the real world as follows:

"First, individuals communicate for many reasons, to find out information, give vent to their emotions, describe their world, and get things done and so on. Very rarely do they communicate to display their linguistic or rhetorical virtuosity. In other words they communicate to fulfill certain needs, and this is achieved, partly through linguistic and partly through non-linguistic means. Another consideration is that the communicative act is intimately tied to its setting".

Nunan (1981.) recognizes that there are at least three elements involved in the communication process: the audience, the communicative aims of the speaker, and language forms. Similarly, Littlewood (1981) talks about two types of communicative activities: functional and social interaction activities. He suggests that language educators should devise communicative activities that will enable learners: (1) to use the language they know in order to get meanings across as effectively as possible; and (2) to use the language in a way that is appropriate to the social setting in which the communication takes place.

The teaching of English for communication necessarily includes many elements of critical thinking because it focuses on form as well as meaning. Jacobs and Farrell (2003) propose a model of communicative language teaching that consists of a number of interconnected aspects, among them the social nature of learning and thinking skills. In other words, the communicative language learning environment can provide a useful venue for students to gain and use thinking skills. Group activities within the communicative language learning environment require students to communicate with their peers, to provide each other with help and constructive criticism, and to challenge each other's views. In short, critical thinking is an integral part of communicative language teaching.

2. Meta-cognitive Learning Strategies

Studies in the psychology of learning also address issues relating to critical thinking in language learning. Students can be trained to use learning strategies that are helpful to language learning, and there are many types of strategies that are thought to be useful (Wenden, 1997; Oxford & Nyikos, 1989; Chamot & O'Malley, 1996). Meta-cognitive learning strategies, if used properly, enable students to become reflective learners. In general, such strategies involve three steps: (1) planning, (2) monitoring, and (3) checking outcomes (Wenden, 1997). Oxford and Nyikos (1989) note that successful language learners take several steps in managing their own learning and each step requires that learners be critical thinkers.

Meta-cognitive strategies are generally self-reflective activities. Poor performance may result from lack of self-monitoring and proper planning. Many studies have suggested that language students should learn how to use such

strategies. Students who are active users of meta-cognitive strategies, therefore, are likely to be more effective learners and good critical thinkers.

3. Research on L2/Foreign Language Writing

In an ESL/EFL context, the four macro skills, listening, speaking, reading, and writing, all require students to perform complex tasks that demand the use of cognitive and meta-cognitive skills. L2 academic writing, in particular, requires that the students exercise a great deal of critical thinking and this process has proven to be very challenging for most students (Pennycook, 1996b; Atkinson, 1997; Briggs, 1999; Thompson, 2002). Asian international students in such places as Australia, have been cited as either failing to use critical thinking or employing different and inappropriate styles of logic in their writing (Ballard & Clanchy, 1988). Some authors claim that, because critical thinking is culturespecific, it is very difficult to get students' from some cultures to become critical thinkers in the Western sense (e.g. Pennycook, 1996b, 2002). Stereotypical belief is that Asian students do not think critically, a view perhaps supported by the evidence of their writing. Yet, some commentators, for example Briggs (1999), argue that such international students are as capable of demonstrating CT as native speakers. It is simply the case that these international students have a rhetorical style that is different from the host culture, and that they have to learn this new style along with the language. From the literature reviewed above, it is possible to draw out a notion of critical thinking in language learning that has three major aspects: (1) communication; linguistics conventions and audiences aims, (2) reasoning; logical and ethical considerations, and (3) self-reflection;

learning environment, performance and learning strategies.

The model includes the principal relevant elements from the three research fields discussed earlier, namely, the communicative approach to language learning and teaching, meta-cognitive learning strategies, and L2/Foreign language writing. The three aspects of the proposed model were translated into five elements that are considered essential to critical thinking in language learning, they are: linguistic conventions, audience, aims, reasoning, and self-reflection.

In the terms of linguistic convention, the place of grammar and vocabulary is crucial. Together these two elements of language are used to provide form and meaning to language that can then be employed in various contexts (Butt et al., 2000). He has made the distinction between 'use' and 'usage' and has suggested that they complement each other. He has argued that knowledge of grammatical rules (usage) is not adequate for effective communication. Competent communicators need to use such knowledge in communicative context appropriately. The use of incorrect forms may result in a failure to convey meaning and then a breakdown of communication. In this study, grammar and vocabulary are referred to as syntax and lexis, respectively, or the term 'lexicogrammar' is used (Butt et al., 2000). In this study too, it is accepted that form and meaning are equally important to language use. L2 /Foreign language learners need to observe linguistic conventions in regard to form in order to express themselves appropriately.

Meanwhile, related with audience, Widdowson (1978) has written that

composing a correct sentence is just the beginning, which, knows a language requires the knowledge of language usage and language use. According to Summers (1992), an utterance should be both grammatically correct and appropriate to a particular situation and culture. In communicative language teaching, the emphasis is on use as well as usage, and learners realize that whether or not language is meaningful largely depends on the audience. According to Brown (2000), when we use a language it is the audience that largely determines the register. Speakers must have in mind addressees, the circumstances and cultural context in every exchange .Therefore, understanding the audience is a crucial aspect of successful communication.

Related with communication aims, people uses language to serve their communicative aims. Language learners can use critical thinking to decide how to use language most effectively to achieve their desired communicative aims. Utterances are successful when the aim of having the audience properly understand the intended messages is achieved. When using foreign language/L2, students need to have knowledge and understanding of the audience, and they need to use linguistic conventions appropriately. Above all, however, they must be able to present language communications in such a way as to achieve the desired ends.

Meanwhile, the aspect of reasoning requires the learner to thinking critically in language learning is about using L2/Foreign language to make meaning; this includes using foreign language to exo plain, reason, or argue. In this study it is thought that reasoning or arguing is appropriate if it satisfies two

basic criteria: it is logical and ethical. Any text is logical when its sentences are coherent, usually signaled by cohesive devices. It is ethical when it shows that its author is open-minded, that is, objective and takes into account other points of views. Appropriate reasoning means there is a balance between logic and ethics. Language is used to reason and also to express the reasoning process. L2 learners need to be able to use linguistic conventions to communicate their reasoning process to their audience in a way that allows the audience to recognize the logical expression of ideas. Logical reasoning demands the use of appropriately organized information as well as appropriately connected sentences and paragraphs. In addition to its context, logical connectedness of a particular text is achieved by the use of cohesive devices. The presence of such devices can help make the text structurally logical (Halliday & Hasan, 1976).

In this study, in addition to logical considerations, appropriate reasoning entails ethical considerations. For Dewey (1993), self-reflection allows one to take into consideration conventions as well as morality and values, in addition to pure logic. For this research, being ethical means that one is objective and open to other perspectives. However, it should be noted here that, as mentioned elsewhere, critical thinking is culturally bound, so that what is considered logical or ethical in one culture or context, is not necessarily considered logical or ethical in another. Thus, different languages and cultures differ in their approaches to reasoning and learners of English, especially international students from Asia attending universities in western countries, are required to express their thoughts and feelings in English in a formal academic style, reasoning with

a western approach to logic.

And related with self-reflection in language learning, most educators consider self-reflection an important element in learning. For Dewey (1993), being self-reflective allows us to be more objective and open-minded. So, human learn through doing or observing and then reflecting on what has taken place. Frequently, human reflect before we apply ourselves. Self-reflection in the present research entails what Dearn (2003) refers to as reflective learning. Following Dewey (1993), he urges students to be more reflective in their learning. However, educators, he says, should play a part in this, by designing courses that make students think about their learning, because it is very difficult for students to be reflective by themselves. He believes that every course should have reflective elements. To be constructively reflective, learners should be reflective about their own performance, their learning experience, and their methods or strategies of learning. Communicative language activities provide students with opportunities to test their ideas and reasons in order to determine their positions (Jacobs & Farrell, 2003). According to Sofo (2004), group activities commonly employed in CLT can bring out many facets of thinking in students: mental-total awareness, observation skills, how differences are valued, capacity for empathy openness to new ideas and values and ability to balance emotion and cognition.

2.2.2 Collaborative Learning

There are many ways to promote CT in language learners. This study is based on the belief that CT is promoted when students work in small groups on inquiry-based projects, over an extended period, supported by the computer. It focuses on real-world issues, and aims to encourage communication skills, reflection and CT. But what is CL?

The idea of CL is not new in education. Johnson and Johnson (1994) write that CL is 'as old as humankind.' He clearly states that in order to learn one must have a learning partner. The students take the benefits by both teaching and by being taught by other students. Being together undoubtedly involves interaction and, therefore, the use of language for communication and collaboration. Broadly speaking, learning involves complex interaction with others, the natural environment, and the learner's own prior knowledge.

CL in this study also includes something commonly found in ELT literature: group work. The term group, for learning purposes, refers to a small group, usually of four or fewer, and seldom more than six students. A pair may also be considered a group (Jacobs & Farrel, 2003).

CL is a term imported into the ESL/EFL context from general education. It may be variously defined. For example, Johnson and Johnson (1994) from the Collaborative Learning Center at the University of Minnesota define CL as:

A relationship in a group of students that requires positive interdependence (a sense of sink or swim together), individual accountability (each of us has to contribute and learn), interpersonal skills (communication, trust, leadership, decision making, and conflict resolution), face-to-face promotive interaction, and processing (reflecting on how well the team is functioning and how to function even better).

Slavin (1995) defines CL as "a variety of teaching methods in which students work in small groups to help one another learn academic content" (p. 2). Similarly, Jacobs (2001) broadly define CL as "a range of concepts and techniques for enhancing the value of student-student interaction."

Jacobs (2001) regards cooperation as a possible "theme" in education: "Teachers who use collaborative learning have learning objectives that are academic, affective and social. Students are encouraged not to think only of their own learning but of their group members as well ... Teachers collaborate with one another and let their students know about this collaboration". A similar viewpoint is taken in this study.

Several findings found that collaborative learning hardly takes place in classrooms in Indonesia because what is mandated is far removed from classroom reality. Zulfikar (2009) noted that teacher-centered instruction and rote learning were prevalent in Indonesian classrooms. Marcellino's study (2008) suggested that ineffective classroom interactions in most EFL classrooms in Indonesia were due to the teachers' performance. Most Indonesian EFL teachers tend to faithfully follow textbooks and student work sheets; they barely provide opportunities for students to use the target language and to interact with their peers (Lie, 2007). However, some challenges of implementing CL in the context of Indonesia are prevalent and there should be some alternatives of coping (Astuti, 2016). First, teacher education programs need to provide links to professional communities that are supportive of novice teachers' identity development. Second, teacher education programs need to consider having a course on teacher identity

development and agency, or address these issues in the existing English language teaching courses, to equip their candidates with knowledge and skills so that they could grow and succeed in their early stages of and throughout their professional life, Third, identities are of key importance of social change and it needed to manifested through collective effort. Considering this aspect, CL in this context will be implemented using technology mixing between F2F and online.

2.2.3 Essential Characteristics of Collaborative Learning

Eventhough there are many concepts of CL, it is generally agreed that there are four essential characteristics: the teacher's role as facilitator, student-centeredness, active learning and heterogeneous grouping. The first nature is the role of the teacher is crucial to the success or failure of collaborative project-based learning, although it is understood that there is less teacher control than with more traditional teaching methodology. The new role should be similar to that of a mentor who gives help and advice to the students. As Smith (2001) puts it, "In light of the technology-driven pedagogy, the teacher's role becomes that of guide and mentor, encouraging students to take charge of their own learning, helping them to learn at their own pace". It is proposed that one way of helping learners to be independent is the use of the context of collaborative activities, where the responsibility is transferred from the teacher to learner (Wenden, 1997). Cohen (1997) describes how the teacher's role changes when students are working in groups:

"Group work changes a teacher's role dramatically. No longer are you a

direct supervisor of students, responsible for ensuring that they do their work exactly as you direct. No longer is it your responsibility to watch for every mistake and correct it on the spot. Instead, authority is delegated to students and to groups of students. They are in charge of ensuring that the job gets done, and that classmates get the help they need. They are empowered to make mistakes, to find out what went wrong, and what might be done about it".(p. 103)

In this study, the researcher and his collaborator encourage the students to play a greater role in their own learning. By doing so, it is expected that they will develop an increased awareness of their learning processes. The second nature is student-centeredness. The teacher's role is considered vitally important in this study, but student centeredness is also a crucial aspect of CL. The emphasis is on students rather than materials, and students are expected to be active constructors of knowledge rather than empty vessels to be filled with knowledge (Brown *et al.*, 1990). Teachers who work from a student-centered perspective attempt to facilitate their students' learning because they know they cannot fully control it (Jacobs, 2001).

This characteristic of CL can be explained by the fact that CL and the constructivist approach to learning are complementary. CL is student-centered in the sense that students are required to take charge of their own learning and construct their own understanding, rather than reproduce the material from textbooks or the teacher (Nunan, 1992). He also asserted that Learner-centeredness is also a major characteristic of communicative language teaching which likewise promotes CL in the form of group work.

In this study, students not only construct their own knowledge, but they also co-construct with teachers. Such an approach allows students many

opportunities to construct learning outside the classroom, either on their own initiative or with their teachers' guidance.

The third nature is active learning. CL actively involves students in the learning process. CL methods aim to maximize student-student interaction through their various participatory activities (Johnson & Johnson, 1994). In most CL classrooms, students are frequently asked to socialize with others, for example, by moving around the room to interact with peers and through "active engagement, not by watching and listening.

The last character is Heterogeneous Grouping. One of the principles of CL is the idea that diversity is something to be worked with, not negotiated around. It is thought that more learning takes place when students of different backgrounds (for example, culture, gender, proficiency level) are placed together and actively participate in a small group (Smith & MacGroger,1992). In this study, the four vital characteristics of CL, active learning, student-centeredness, heterogeneous grouping, and teacher's role as facilitator, are complementary.

Those natures are in line with Fakhruddin. A ,Yuliasri.I, & Bharati, B.A.L (2013) who stated that each group of cooperative learning has four or six members from different ability and also different social background, so it can affect mainly the student"s motivation in learning a new material. In the cooperative learning, the teacher"s position is as a facilitator and consultant in a teaching learning process. Meanwhile, Ibriza, K.N (2017) also claimed that In cooperative learning, teachers teach students collaborative or social skills so that they can work together more effectively. Cooperative learning provides and

facilitates students to work together in group (pair of team) in order to accomplish their work at the end of the learning process, every individual is responsible for learning something by using his or her own way.

2.2.4 Hybrid Computer-Mediated Collaborative Learning

In globalization era, the requirement for the development of information technology (IT) makes the world of education must adopt and involve IT in the learning process (Abdillah, 2013). Education is not only has the aim to transfer knowledge, but also improve the ability of analysis, synthesis, communication and connecting the science with the real world. This can be achieved if the learning process is supported by technology (Muryani, Sarwono, & Nugraha, 2017). Recently, e-learning considers as a critical element in the educational system which imposed an innovative shift in the learning environment (Nagarajan & Jiji, 2010). So that e-learning (often referred to as online learning) is not just broadcasting documents in electronic format to students via the internet. Elearning includes a pedagogical approach that usually aspires to be flexible, engaging and learner-centered; that encourages interaction (staff-staff, staffand collaboration communication, student, student-student), and asynchronously (though not exclusively so), hence there should be some method of assessing its implelemntation (Hetty Rohayani. AH, Kurniabudi & Sharipuddin. 2015).

Blended learning courses (also known as hybrid) constitute a popular dimension of Web-enhanced instruction, as along an instructional delivery continuum they find themselves right in the middle, between courses delivered fully online, and those that are implemented solely through face-to-face (f2f), traditional instruction.

Many definitions exist for hybrid learning, in this study, when reference is made to computers it is assumed that the computers have internet access. Warschauer (1997) describes five features of computer-mediated communication (CMC) that have the potential to promote CT in the context of language learning. According to Warschauer (Ibid.), CMCL is text-based; enables many users to communicate with one another; is time and place independent; enables long distance communication; and can be distributed easily via hypermedia links. The five features are essential for any CMCL environment. CMCL increases students' achievement levels, inter-group relations, acceptance of academically handicapped classmates and self-esteem.

This CMCL was blended or hybrid CMCL entailing both online and offline learning activities. The students attended their normal classes (meet face-to-face with each other and their teacher), would be required to complete their given tasks using the Internet to communicate with other students. The decision to follow this flexible patch will be made by the researcher and his collaborators prior to the research, as it was a 'double' approach. This position would be similar to the work reported by (Strambi & Bouvet, 2003) where both online and face-to-face modes were reported.

Dabbagh and Bannan-Ritland (2005) explained that in the context of a hybrid course, online learning complements classroom instruction, combining online and f2f learning activities. Meanwhile, (Seaman, 2003), a course is defined

as hybrid/blended when a 30 to 80% of course instructional design and implementation, both on a content and delivery level, are performed online.

Moreover, the researcher is in line with Graham's (2006) idea in which it seems that he is the one that most accurately reflects the historical emergence of blended learning systems, which originated as a combination of traditional and face to face learning systems. According to Graham, "blended learning systems combine f2f instruction with computer-mediated instruction" (2006, p.5). He also goes on to note that this definition "emphasizes the central role of computer-based technologies in blended learning" (p. 5). Graham (2006) identifies three major reasons of why would any instructor select blended learning over other teaching and learning options; (1) improved pedagogy, (2) increased access and flexibility, and (3) increased cost-effectiveness. Osguthorpe and Graham, as cited in Graham, 2006) also include social interaction, personal agency, and ease of revision.

However, the teachers cannot lose sight of the fact that blended learning may allegedly combine the best of both traditional and distributed learning, but when instructional design and delivery are not pedagogy-driven, appropriate for a particular learning context or simply not well executed, then blended learning can also reflect the worst of both worlds.

The researcher emphasizes that in order to make an informed, pedagogically sound decision as to whether or not adopt blended learning for one's teaching context, an instructor must compare the potential strengths and weaknesses of face to face and asynchronous (not concurrent) online

communication, and consider how each type of delivery will serve the teaching and pedagogical goals for the class.

Table 2.1 Strengths and Weaknesses of Face to Face and Online Discussions (Adapted from Graham, 2006)

	Online (Asynchronous) Dis	cussions F2F Discussions
Strengths	 a. Flexibility—student participation a time and place convenient for 	
	 b. Participation—all students part lack of time and place constrain 	1 1 1
	c. Depth of reflection—students h consider their responses more comprehensively	
Weaknesses	 a. Spontaneity—rapid chains of a and serendipitous discoveries ar 	instructor may not be able to
	 b. Procrastination—students may participating online 	procrastinate the desired depth of discussion
	 c. Human connection—not as eas develop social presence and trus 	

Several studies conducted in school and university proved that blended learrning can improves the results of learning. A study done in senior high schools also proved that the use of CMCL can enhance students' motivation and achievement (Sjukur, 2012). The study conducted by Kurniawati.R and Djuniadi (2016) in class XI SMK N 2 Purwodadi shows that blended learning media based on edmodo can facilitate the message from the sender into the recipient so that it can stimulate students' critical thinking and attention leading to the spontaneously, structured and monitored.

The use of techologies in teaching writing are also congruent with Widiati and Cahyono (2006) who synthesized many research studies on EFL writing in

Indonesian Context, in their analysis, they summarized that methods of teaching writing should respond to students' need to function effectively in most of todays' world. They further claimed that the phenomena known as globalization and internet revolution have brought the expansion in the use of English in the world. To participate in the world community, particularly within interconnected economic, technological and geopolitical realities, an English fluency is required both in written and spoken form. Research on EFL writing has also taken into account the development of research and technology especially the internet and how it affect the way students' write. For example, Soedjatmiko and Taloko (2003) examined the effectiveness of e-portofilo in teaching descriptive writing. The result of this study view that they key success in writing lies in much reading and abundant practice of writing, the study showed that e-portfolio could provide a great amount of writing task. E-portfolio could further contribute to a positive habit of daily writing.

Other study found by Ahmad (2012) found that the integration of media and technology to the class can boost students' participation, promote student-centered mode, create positive atmosphere, and improve the students' writing ability. Cahyono and Mutiaraningrum (2016) also support Ahmad's (2012) study by claiming the major findings that the Internet-based teaching of writing has shaped student writing in myriad ways; it improves students' writing quality and quantity, scaffolds active and independent learning, motivates students' learning, provides learning flexibility, and raises students' confidence. The other supporting arguments which stated that there are many benefits of Internet-based teaching

for the learners are calimed by Yunus, M. M., and Salehi, H. (2012) who undermined that it can improve students' writing by providing the students chance in brainstorming to organize thought before writing, learning new vocabularies, and reducing spelling errors through spell-check features.

Social media like facebook and/or twitter become one of the most visited and used applications over the internet. The rapid development of online social networks has tremendously changed the way of people communicating with each other (Abdillah, 2016). Furthermore, Kamnoetsin (2014) found that Facebook helped to break space-time constraints and provided pleasant experiences, improved students' writing skills including grammar and vocabulary. Thus, Facebook served as an efficient means to facilitate learning process by providing important English knowledge and eased the students in sharing knowledge (Agustina & Cahyono, 2017). Meanwhile, Sulisworo. D. Rahayu. T and Akhsan.R.N (2016) conducted a research to examine the effectiveness of blended mobile learning activity using Facebook to improve student writing skill. Four aspects used as criteria of writing skill: ideas, organization, wording, and flavor. The results showed that this learning approach had shown good results in some aspects, particularly in improving the skill of shaping ideas and organizing the ideas into written form. The uses of various learning strategies that make students more active and centered on students tend to increase the ability of students to search for new ideas creatively. Among others, the positive aspect is the students have the knowledge and understanding of new concepts that can support the idea of writing in the aspect of idea and various choices of words. Based on some considerations from the studies above, facebook was used by the lecturer to elaborate the implementation of HCMCL in the class of writing.

2.2.5 The Ecology of Language Learning

Ecological Perspective is the scientific study of the progressive, mutual accommodation, throughout the life course, between an active, growing human being, and the changing properties of the immediate settings in which the developing person lives, as this process is affected by the relations between these settings, and by the larger contexts in which the settings are embedded (Bronfenbrenner, 1989). The principle defines as the ultimate aim of the scientific endeavor the systematic understanding of the process and outcomes of human development as a joint function of the person and the environment over the course of that person's life up to that time. This sees human development (and learning) occurs in multiple contexts. These include the microsystem, mesosystem, exosystem, macrosystem, and chronosystem (Bronfenbrenner, 1989, 1998).

The ecological approach is one line of research in second language acquisition (SLA) that has gained prominence very recently (Blyth, 2009; Ingeborg, 2007; Lafford, 2009; Menezes, 2011; Tudor, 2001; van Lier, 2003, 2004). Among other evidence, the emerging popularity of this approach is evidenced by two accounts of course offerings, in 2002 and 2004, and one panel-format event at the CALICO (Computer Assisted Language Instruction Consortium) 2009 conference all focusing on this topic. Van Lier (2004) describes his graduate seminars on The Ecology of Language Learning at the University of Auckland and at Pennsylvania State University, State College, offered in 2002;

and Kramsch (2008) provides an account of the 2004 Berkeley course Language Ecology, which focused specifically on interdisciplinary explorations of "language within its individual, societal, cultural, and historical frameworks" (p. 390). Thorne and Smith (2011) recount that one of the four primary orientations of established approaches to SLA research with respect to technology-mediated language learning is ecological, as evidenced by the panel on Ecological Approaches to SLA and Technology at the CALICO 2009 conference.

The ecological approach to language and language learning is not a contextual method or theory but a worldview that can motivate a variety of research approaches and methodologies (Van Lier 2004, p. 205). This view includes the notions of a consistent theory of language, semiotics and meaning-making through dialogue; a physical, social, and symbolic context; situational activities rooted in time, space, and a person's self and identity; a critical evaluation of the quality of learning environments and educational activities; and variation and diversity as intrinsically valuable (Van Lier, 2004, p. 21).

While an explicitly ecological perspective for studying language learning is relatively recent, the ecological perspective has long been applied to studies in other fields, including as a metaphor in fields such as psychology (Menezes, 2011). From its establishment as a scientific discipline in the mid-19th century, ecology has developed into two directions: trying to assess and mitigate human impact on the environment (such as in the fields of environmental science, waste management, reforestation, etc.) and trying to understand the full complexity of the environmental processes (such as in the fields of systems theory, cybernetics,

chaos and complexity theory, and ecological linguistics) (Van Lier, 2004). An ecological view of linguistics is closely related to the socio-cultural theory approach (SCT) (Berglund, 2009), which, as stated in the introduction to this study, views cognitive development and learning as historically constituted and situated in social practice.

Most of the publications within the ecological linguistic perspective continue to focus on the classroom (Borrero & Yeh, 2010; Ingeborg, 2007; Tudor, 2001; Van Lier, 2003, 2004; Warschauer, 1998) and distance education (McCann 2004; White, 1999). An ecological perspective also takes into consideration the experiences and relationships of the learners (and sometimes teachers as well) outside of the formal learning environment, which are considered important for forming the identity those learners (and teachers) bring into the classroom and therefore into the learning process, but the primary interest in these publications has remained the formal educational setting. Lam and Kramsch (2003), Palfreyman (2006, 2011), Barrett (2008), Thorne, Black and Sykes (2009) and a collection of research papers edited by Benson and Reinders (2011) represent counterexamples by examining employee training, self-instructed language learning, distance language education organized by a corporation, and informal learning in physical and online social communities. However, several of these studies (Palfreyman, 2006) recruited participants from the university setting, which is a limitation of the studies.

Van Lier (2004) describes several relationships that are studied in ecological linguistics: between language and the physical environment, language

and the social/cultural environment, between and among languages, and between the learner and the learning context. Relying with this, this study is going to analyze on how the strategies conducted by the lecturer in order to promote students' critical thinking, how the students promote critical thinking in the aspects of communication- reasoning and self reflection, and how the process of students' development in critical thinking from ecological perspective occurs.

2. 3 Framework of the Study

The purpose of this research is to analyze the strategies used by the lecturer in implementing HCMCL, the students' promotion of critical thinking in this class and the process of development viewed from ecological perspective. To reach the aims, the researcher defines the concept of critical thinking, the relationship between collaborative learning and critical thinking and the connections between HCMCL with critical thinking, also ecological theories in viewing students' development in critical thinking.

There has been much debate over how to best define critical thinking (Petress, 2004; Mulnix, 2012). For the purposes of this research, it is required a definition that not only fully explained what critical thinking is, but that was also comprehensible enough for lower-intermediate to intermediate level English students. However, finding a definitive definition for the term has proved problematic. One of the problems is that the term is used inconsistently (Lewis & Smith, 1993; Petress, 2004). Facione tried to standardize a definition for critical thinking by asking 46 experts on critical thinking in order to come to a consensus

on what critical thinking is. The panel of experts agreed that critical thinking is purposeful, self-regulatory judgment which results in interpretation, analysis, evaluation, and inference, as well as explanation of the evidential, conceptual, methodological, criteriological, or contextual considerations upon which that judgment is based (Facione, 1990, p. 2). While this definition is one that the majority of experts asked by Facione were able to agree with, most of the language used in the definition would be difficult for intermediate learners of English as a Foreign Language (EFL) to understand.

In order to find a more adequate definition, the researcher look at a number of the other definitions for critical thinking. Ennis (1963) in one of the earliest, and often cited, definitions of critical thinking says that critical thinking is the correct assessing of statements. However, Ennis (1993) himself later admits that this definition was too "vague" and that it did not account for what he calls the "creative aspects of critical thinking". Additionally, definitions on critical thinking are often influenced in large part by the specific domain of the researcher. Petress (2004) finds striking differences in the definitions proposed by psychologists, philosophers, and education scholars. Mulnix (2012) eases some of the confusion around defining critical thinking when she states "critical thinking has little to do with what we are thinking, but everything to do with how we think" (italics in original, p. 3). By viewing critical thinking as a process that describes how we become good thinkers, we have been able to give our students a series of steps that break down the different activities encapsulated by the term critical thinking. Both Mulnix's ideas on critical thinking and the process steps

laid out by Paul and Elder (2005) provide students with an easily understandable concept of what critical thinking is all about, they are as the following; Raise vital questions & problems that are clearly and precisely formulated, Gather & assess relevant information, come to well-reasoned conclusions, then test these against relevant criteria & standards, Think open-mindedly, Recognize and assess assumptions, implications, & consequences, and Communicate effectively with others.

In this study, however, the researcher takes the concept of critical thinking from Benesch (1993), Fox, (1994) and Ballard (1995) which has three identifiable aspects: (1) communication, (2) reasoning, and (3) self-reflection. These aspects have a closer relationship with writing as a productive skill and contain ecological elements which will be the knife of analysis in this study. As has been discussed previously, since writing is regarded as the tool to teach the students to be a good critical thinker, the researcher conducted the research in writing class. The researcher undermined that there are three major research areas contribute to the assessment of the significance of critical thinking in language learning (See Appendix 1). These are communicative language teaching, meta-cognitive learning strategies, and writing research, especially in reference to academic writing.

a. Communicative Language Teaching (CLT)

The teaching of English for communication necessarily includes many elements of critical thinking because it focuses on form as well as meaning. Jacobs and Farrell (Jacobs & Farrell, 2003), propose a model of communicative language

teaching that consists of a number of interconnected aspects, among them the social nature of learning and thinking skills. In other words, the communicative language learning environment can provide a useful venue for students to gain and use thinking skills. Group activities within the communicative language learning environment require students to communicate with their peers, to provide each other with help and constructive criticism, and to challenge each other's views. In short, critical thinking is an integral part of communicative language teaching. In line with this, the researcher will use Nunan's theory to analyze the students' promotion on critical thinking in the aspects of communication, i.e the audience, the communicative aims of the speaker/writer, and language forms. Nunan (1981) recognizes that there are at least those three elements.

b. Meta-cognitive Learning Strategies

Meta-cognitive learning strategies which involve three steps: (1) planning, (2) monitoring, and (3) checking outcomes (Wenden, 1997) will enable students to become self- reflective learners.. Oxford and Nyikos (1989) notes that successful language learners take several steps in managing their own learning and each step requires that learners should be critical thinkers. Meta-cognitive strategies are generally self-reflective activities. Poor performance may result from lack of self-monitoring and proper planning. Many studies have suggested that language students should learn how to use such strategies. Students who are active users of meta-cognitive strategies, therefore, are likely to be more effective learners and good critical thinkers. The importance of meta-cognitive strategy used to improve students' ability to be self reflective learners then make the researcher withdraw

that it becomes one potential shall be assessed in deciding one's indicator of critical thinking enhancement.

c. Research on ESL/EFL Writing

The four macro skills, listening, speaking, reading, and writing in an ESL/EFL context require students to perform complex tasks that demand the use of cognitive and meta-cognitive skills. L2 academic writing, in particular, requires that the students exercise a great deal of critical thinking and this process has proven to be very challenging for most students (Thompson, 2002). Asian international students in such places as Australia have been cited as either failing to use critical thinking or employing different and inappropriate styles of logic in their writing (Ballard & Clanchy, 1988). Some authors claim that because critical thinking is culture-specific, it is very difficult to get students' from some cultures to become critical thinkers in the western sense (Pennyook, 1996). Stereotypical belief is that Asian students do not think critically, a view perhaps supported by the evidence of their writing. Yet, Briggs (1999) argue that such international students are as capable of demonstrating critical thinking as native speakers. It is simply the case that these international students have a rhetorical style that is different from the host culture, and that they have to learn this new style along with the language. In line with this, the researcher concluded that the lack of students' ability to express their opinion logically means that the students cannot state their ideas using reasoning appropriately will have an impact on the readers understanding about the context delivered by the writer. At last, it will end with miscommunication. Based on this explanation, it is clearly seen that reasoning

must be considered as the potential shall be assessed in measuring critical thinking.

From the literature review above, it is possible to draw out a notion of critical thinking in language learning that has three major aspects: (1) communication, (2) reasoning, and (3) self-reflection. The three aspects of the proposed model were translated into five elements which is considered essential to critical thinking in language learning in this study, they are: linguistic conventions, audience, aims, reasoning, and self-reflection in Language Learning. (See Appendix 1)

In the point of introduction, the researcher pointed out that critical thinking may be promoted by collaborative learning. Slavin (1995) defines collaborative learning as "a variety of teaching methods in which students work in small groups to help one another learn academic content" (p. 2). Similarly, Li (2014) broadly defines collaborative learning as "a range of concepts and techniques for enhancing the value of student-student interaction." Even though there are many concepts of collaborative learning, it is generally agreed that there are four essential characteristics: the teacher's role as facilitator, student-centeredness, active learning and heterogeneous grouping (Wenden, 1997; Brown et al., 1990).

Collaborative learning regards learning as an active, constructive process, in which knowledge is not just transmitted but is jointly created in an inherently social context where students work in groups or together with teachers within an authentic situation using high-order thinking and problem-solving skills (Smith &

MacGregor, 1992). In CMCL, Gros (2001) defined collaborative learning with three underlying theories: (a) constructivism, (b) cultural-historical theory, and (c) situated-cognition.

- a. Constructivism originated from Piagetian theory and highlights individual knowledge construction with respect to social interaction. Social constructivist learning environments promote complex and realistic problem-solving skills in order to engage students in collaborative and individual knowledge building through group collaboration and interaction, and in which the teacher facilitates, manages and provides guidance (Bruns & Humphreys, 2005). It is why in this study, the use of CMCL is established by the teacher for students' critical thinking enhancement.
- b. Cultural-historical theory originated from Vygotskian psychology, and argues that internal cognitive change is affected by social interaction, in which scaffolding is provided through adults or capable peers.
- c. The theory of situated-cognition advocates that new knowledge should be learned within a specific context so that learning can be applied to a new situation (Brown, Collins, & Duguid, 1989).

In addition, there are four concepts used to explain how and why critical thinking in language learning can be promoted through collaborative learning. They are (1) Vygotsky' Zone of Proximal Development (ZPD), (2) Krashen's input hypothesis, (3) observational learning, and (4) humanism in education and psychology (See Appendix 2). Each concept mentioned is believed to pervade

every elements of the learning environment.

Firstly, Vygotsky defined ZPD as "the distance between the actual development level as determined by independent problem solving and the level of potential development determined through problem solving under adult guidance or in collaboration with more capable peers" (Vygotsky, 1935, p. 86). He conducted his research by studying the acquisition of scientific concepts and the learning of language. Basing his analysis on a socio-historical perspective, he found that learners have the potential to develop themselves. To make progress they need help from a heterogeneous group — a group that includes more equal and fewer less capable individuals. The task should be one that allows the students to do more than they could do alone in order to make it possible for them to develop further. Collaborative activities promote growth because students of similar ages are likely to be operating within one another's zone of proximal development.

Secondly, in line with input and output hypothesis, CL uses both productive and receptive elements in the process of language acquisition because of its reliance on intensive and meaningful interaction. Clearly, CL encourages language production but, as Krashen writes, comprehensible input is also necessary for successful acquisition of language. Krashen and Terrell (1983) explain that humans acquire a language by making an effort to understand its message even if it is a bit beyond their existing level of ability. In CL, obviously, there are more inputs or stimuli for learners than when learning is undertaken in traditional classrooms. The more comprehensible input is created from

meaningful interaction, and the more comprehensible output, the better it is for language learning.

Thirdly, related with observational learning, social psychologist Albert Bandura proposed a broad learning theory based on a belief that mental states or thoughts regulate actions. In his view, behavior, personal factors and environmental factors "all operate as interlocking determinants of each other" (Bandura, 1986, p.9). Humans can learn by observing the environment, and through their observations can form ideas that can later be retrieved. Learning, then, can take place indirectly, by observing phenomena, as well as through first-hand experience. Learners as observers can acquire new cognitive skills and patterns of behavior by "observing the performance of others" (Bandura, 1986, p. 49). To assist with understanding, Bandura has coined the term 'vicarious learning', which means that when learners pay attention to the modeled activities or events. In CMCL learning contexts the Internet, like television, is full of "symbolic models" that can play important roles in shaping our behavior and perception.

Fourthly, the humanistic movement has contributed to the development of a student-centered approach to teaching, and its influence on language teaching and learning is quite significant. As Nunan (1992) says, "It provides a rationale for several of the more prominent teaching methods such as Community Language Learning, the Silent Way, and Suggestopedia" (p. 2). The humanistic approach to ELT places considerable emphasis on the value of individual differences, the teacher's capacity for empathy with learners and, above all for the

benefit of this research, social interaction in the form of group work.

To analyze students' development in learning, the researcher uses human development theory from the developmental psychologist, Bronfenbrenner (1979,1998). He outlined ecological systems theory drawing on earlier work of Kurt Lewin and the notion that human development (and learning) occur in multiple contexts (Campbell Gibson, 1998). Bronfenbrenner's theory has since been applied not only in developmental, child, and educational psychology, but also in other educational research. For example, McCann (2004) applied this theory to an investigation of how graduate students construct their learning in an online course, Tissington (2008) applied it in examining the transition to formal teaching of alternative certification candidates, and Leonard (2011) applied it to determine the effect of school-community partnerships on student development and success in an urban U.S. high school. In language teaching, examples include Van Lier's (2003) application of this theory as a framework for research with educational technology for language arts in a U.S. elementary school and in an intensive English as a Second Language (ESL) program at a U.S. university, and Borrero and Yeh's (2010) English language learning research in an urban public high school in San Francisco, CA. This theory is useful for research espousing an ecological worldview because it is activity-based and focused on the connections within and across nested systems (van Lier, 2003, 2004).

These nested sub-environments include the microsystem, mesosystem, exosystem, macrosystem, and chronosystem (Bronfenbrenner, 1979, 1998) (See Appendix 3). Based on this category, the researcher have identified the elements

of each level of ecological systems in the classroom as follows; the micro system, the individual's direct social interactions, includes other learners, instructors, tutors, and native speakers, among others, in the learner's immediate environment. The mesosystems are the multiple interrelated microsystems and can be manifested in language learning in the form of support (such as available time and resources), that is available for language learners to study and practice the language. Therefore, these two systems together account for the research questions (posed in the present study) how learners locate and use resources to support their study of the language, what support they have to learn and practice the language in their immediate communities, as well as how these factors influence the learners' motivation.

The exosystems are social systems with which the individual does not interact directly but that influence the individual's development, such as systems that determine the required curriculum. In an informal online language learning context, the exosystems include the various curricula and resources that the learners located and are using as well as the lack of opportunities they may have discovered in the formal learning setting. Relating to the research questions posed in the study, these factors exert influence or limit the choices learners can make to achieve their language learning goals.

The macrosystem, the broader cultural context, includes issues of power, cultural codes and expectations, socialization practices, and other considerations of a wider view of context as described in the field of adult learning. Tudor (2001) accounts for this broader cultural context in language learning by focusing on

socialization practices such as the influence of socio-cultural traditions (SCT) of learning on what he terms the mental component of context, which includes - among others - the learners' perceptions of the teaching-learning process and teachers'/learners' roles in that process, on their definitions of goals, and on their interaction with methodology and technology. But the macrosystem also accounts for learners' notions of the importance of studying a particular topic, such as a foreign language, and also plays a role in limiting the choices learners have to study that language. The macrosystem influences the learner's identity, whether as a member of the native culture (speaking the native language), the target culture (speaking the target language), or somewhere in between, "a third place," located at the intersection of multiple native and target language learning cultures (Kramsch, 1996).

Lastly, the chronosystem accounts for the change in all of the other subenvironments over time. For example, the interaction of the chronosystem with the macrosystem is evident in increasing globalization and technological innovation, both of which impact learners and the learning process by providing or denying learning opportunities, and supporting or impeding learning. The interaction of the chronosystem with the microsystems and mesosystems account for the nurture portion of a learners' development from childhood into adulthood.

Although the detail figures of each theoretical framework can be seen in Appendix 1, Appendix 2, and Appendix 3, the researcher still summarizes the theoretical framework of this study in the following figure.

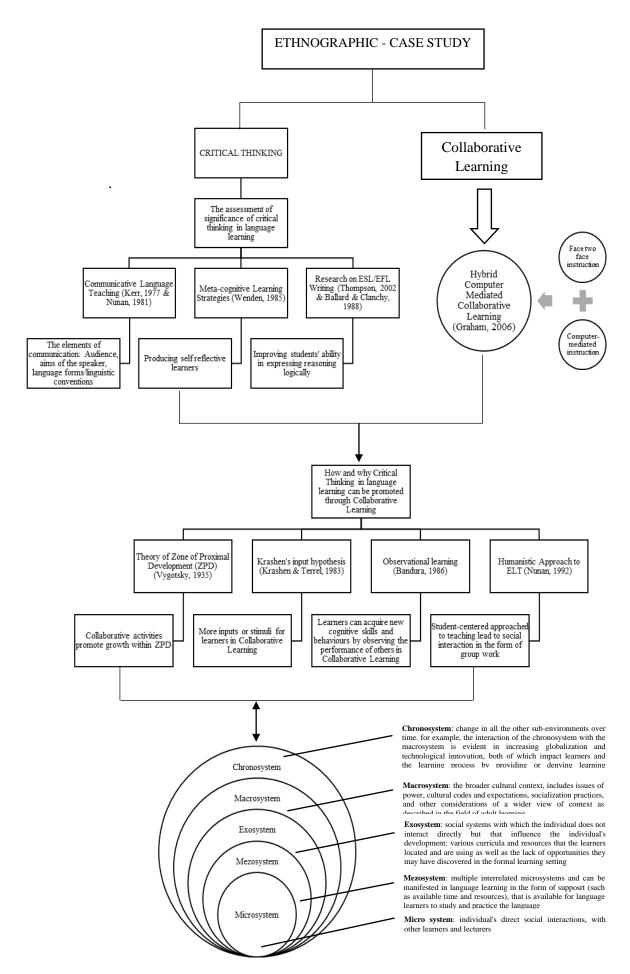


Figure 2.1 Framework of the Study

CHAPTER V

CONCLUSIONS, IMPLICATIONS AND SUGGESTIONS

This chapter presents conclusions of the study, implications, and suggestions. The conclusions deal with a brief description of the findings and discussion as a reflection of the answer to the research questions. Whereas, the implications and suggestions concern on considerations and future perspectives in the light of the findings of the present study.

5.1 Conclusions

In reference to the findings and discussion of this study, some conclusions are drawn and presented below. First, the lecturer implemented the pedagogy of teaching in this classroom and he used the elements of hybrid learning as suggested by Graham (2006) including time, fidelity, space, and humanness. Related with time, the lecturer used 50:50 or 60: 40 percentage for a face to face and online learning. Here, the semisynchrounous teaching is used because the participants can both communicate in the real time and place sessions and in different space and time sessions. Meanwhile, it can also be seen that the ongoing process of learning was designed in high fidelity involving engaging, captivating, productive, and directly connected to course learning outcomes. The element of space in this classroom was a mixed reality of F2F/online. Facebook was chosen as the best tool because it gives many benefits such as uploading file, commenting on people's posting, offering comments and making groups. Whatsupp and Email would be chosen as the supporting application in the online sphere since it helps a

lot for online discussion. In F2F forum, the students met every week with their lecturer, their pairs and their friends from other groups. And the criterions of *humanness* were fulfilled by the lecturer by giving some jokes and ask questions with friends, relating the topic of discussion with everyday life experience or trending themes, providing social presence and immediacy not only for face to face interaction but also consider the social presence and the existence while chatting with the students, building solid relationships among the participants, fulfilling the prerequisite of the social presence from their participation and giving the feedback and evaluation.

It also reveals from the finding that the students promote critical thinking in the aspects of communication, reasoning, and self reflection in this class. In line with the aspect of communication, the results of investigation showed that the students' linguistic convention aspects were promoted. The students were confident in expressing themselves in English and were not afraid to make spelling and grammatical mistakes. In this study, the students learn to write in the context of online group activities, they were actively engaged in three worlds: the world inside the classroom, the world outside the classroom, and the world online. It has an impact on students' activeness in participation leading to authentic communication. The students used the language to interact vigorously and use the target language to achieve their goals so that they had to expand their language repertoire in both vocabulary and grammar in order to express complex meanings, and both receptive and productive language was involved.

The findings also reveal that the activities in the class stimulated the use of

English in authentic situations, especially because there were multiple sources of support in place and challenging tasks involved. In terms of their vocabulary learning, the students were required to learn language receptively and productively. This is a highly desirable way to acquire new words. In this study, HCMCL encouraged the students to develop and practice communication skills. The Facebook group gave the students opportunities to practice using the language in a holistic fashion and it also encouraged complex use of the language covering a wide range of communicative functions. The students' language output was rich, diverse and complex. However, accuracy was far from perfect, and this is a shortcoming that has been reported in other studies emphasized in the two previous chapters. It was found that the students took risks and voiced their ideas and feelings despite spelling and grammatical errors. However, it is recognized that it is linguistic accuracy matters. Although the focus was on communication and getting the intended message across, students were required to be aware that the medium was not an oral one. Failing to conform to linguistic conventions such as spelling, could well have resulted in text or discourse that was difficult to understand; that is, text that was inappropriate. The nature of written language prevented the students from using other means, for example, intonation, stress, or gestures, to help convey the intended messages. So that, in this study, the students learnt how to be effective language learners. Congruent with this idea, the researcher agree with Harmer's opinion (1991) who claimed that the consideration of being effective writers are, "... the reader has to understand what has been written without asking for clarification or relying on the writer's tone of voice or

expression" (p. 53). In brief, group activities in this HCMCL class helped the students learn language but also helped them to be more effective language learners.

Related with the aspect of reasoning, it can be seen from the data of student's writing that the content of the students' work (writing) revealed some objectivity and open-mindedness. It can be seen when the students researched their topics and presented their work in some depth. There was an improvement in the way they organized their information in a coherent manner. The texts that were produced showed the use of a variety of cohesive devices / transitional markers. Many students do not use it appropriately in the rough draft. However, in the finished product, they proved that they can use it appropriately. So that the students as the writers will not jump out of the blue or sound too abrupt. Their ideas will flow smoothly one after the other. The online environment exposed them to different perspectives, an important condition to develop critical thinking. Some issues raise different perspectives leading to controversial argument. This can be considered a healthy sign for students. As Johnson and Johnson (1995) noted, academic controversy, properly structured, can result in higher quality reasoning, problem solving and decision making.

Related with the aspects of self-reflection, this class has the potential to promote critical thinking because it encouraged the students to be reflective in their language learning. They were reflective when they carried out their tasks in collaboration with peers and helpers. They were also reflective after their tasks were completed. Because the teachers positioned themselves as facilitators and

co-learners, the students were empowered to be more autonomous in their learning. The students were also encouraged to be self-reflective in their learning, at least partly because the task itself involved linguistically or cognitively complex operations (Oxford *et al.*, 2004) and because of group dynamics (Swain & Miccoli, 1994). In short, HCMCL provided an experiential learning context for the students, and this type of learning environment has been widely acknowledged as being an effective way to learn how to think (Dewey, 1963) and how to learn another language (Nunan, 1981).

The students' self-reflection process was evident from their overall work, online discussions, written reports and the comments from the teachers, and the interviews. As was mentioned in the previous chapter, the students reflected on both their language ability and their attitudes towards studying English (through the questionnaires). The comments from the teachers also helped reinforce the belief that this HCMCL has the potential to encourage students to be self-reflective in their language learning. There was evidence to suggest that the students perceived themselves to have improved in their language competency. They had opportunity to reflect on their learning environment, and, from their writing, it was clear that many realized the value in learning as a group. Some became aware of their own methods of learning.

The computer technology used in this HCMCL environment, being textbased, helped enhance students' input. Because their language output was disseminated via their websites it served as comprehensible input for others; it allowed other students to notice the language in use. The asynchronous communication that the technology allowed meant that students had time to reflect on their language and what they had to say before posting. The findings showed that this HCMCL enable to promote the students to co-construct knowledge, communicate their ideas and feelings appropriately, reason appropriately, and to be self-reflective in their language learning.

Finally, the analysis through an examination of the five levels of ecological perspective; micro, mezzo, exo, macro and chrono systems of the students showed that all of the levels of the system bounded in the students are enabling to promote students' critical thinking. The data of interviews showed that the micro system of students support them to learn how expectations and rules of behavior in HCMCL class change across different micro-systems (e.g., home, classroom, youth group), to learn the language and routines with their peers and lecturers, to learn new life skills by participating with their peers and lecturers, to observe how individuals interact and treat each other in HCMCL class, to learn to apply basic human values, .i.e honesty and respect in HCMCL class, and to learn how to get along with their peers by participating in group activities in HCMCL class. Meanwhile, the mezzo system of students which support their development comprised the collaborative role between the parents, the lecturers and other school personnel in sending children consistent messages about their behavior, in reinforcing similar learning experiences in the classroom and at home, in assessing the physical- cognitive- and emotional needs of learners, in collaborating with community agencies to provide student's physicalcognitive- and social-emotional needs, also the lecturer enrich students' education and provide cultural learning experiences by using interactive technologies to cooperate with other lecturers. The exo system of students then included the role of the school administrators, as well as lecturers and parent groups to work together to plan and implement policies that ensure all students receive equality education through IT development in the classroom. Besides, the role of the school boards develops educational budgets and policies that take into account the lives of diverse families have also seen in this study. Finally, the participation of the communities to support the well-being of students through social services, in which it offers ongoing cultural and artistic events that enrich human lives and reinforce a sense of community identity. In the bigger scope of individuals, the macro system involved the early construction of identity as international class students and belief system of the society, the students received consistent and positive messages about "Islamic values" and customs through the media; community events; and classroom lessons, students learnt to respect the values and customs of all cultures within and outside the classroom and home, and students are taught about the value of healthy self-expression through literature, dance, art, and music. At last, the biggest scope of individual, the chrono-system support them to develop came from the new technology which influences the way the students behave and work, also new educational research reshapes the way students are taught in the classroom.

5.2 Implications

Based on the results of this study, several implications are necessary to be provided. Firstly, this study focused on analyzing how the lecturer implemented HCMCL for promoting students' critical thinking IAIN Salatiga. This may encourage English teachers or lecturers to use computer technology and internet to enhance language learning. This study raises the issue of the significance of creative and collaborative use of information and communication technologies for teaching practices. However, the focus of its implementation should be on the pedagogy, not technology. To say that HCMCL works because people make it work is needless. This study showed that the lecturer used the pedagogy of active learning. The evidence can be seen when the lecturer practiced four key dimensions of the implementation of HCMCL, such as time, fidelity, space and humanness. All of the criteria are conducted by the lecturers considering that the students are viewed as constructed knower, a term derived from Belenky, et.al (1986), it describes that the individuals views all knowledge as constituting a combination of who the knower are, what they have experienced, and existing knowledge available to them, as well as the context in and means by which they communicate what they know. Relying with this theory, the interrogation and integration of what is known with what is unknown; individuals create and invent knowledge as a means of understanding. In active learning, students are actively engaged in the knowledge construction and acquisition process rather than takes place outside class so that they are well prepared for taking part in class activities which generally involve collaboration, cooperation and problem solving. An emphasis of this practice was based on the principle of socio-constructivist theory. This theory views teaching and learning as social and scaffold processes that emphasize students taking control of their own learning. Throughout the socio-constructivist learning process, teachers provide the support for students.

In line with the above explanation, the other finding showed that in order to apply the support, the lecturer should consider the concepts. The findings revealed that all of the systems bounded in students influence their development in critical thinking. It was evidence that the lecturer and the university provided the support manifested in the micro, exo, mezzo, macro and chrono-systems bounded on students of ICP. Therefore, this practice is suited with ecological perspective which accounted the five levels of system in human development. Pedagogically, this finding will give the contribution in the field of education, especially for the teachers who want to implement HCMCL that the support in this context is really essence for determining the successful of teaching. It was in line with Huffaker and Calvert (2003, p.326) who stated that the agency which implement the principle of socio constructivist theory should prepare the aspects such as curriculum methods and materials designed to allow students to apply concepts being learned to real world contexts, build local and global communities of practice, and allow the opportunities for learning in and out of the classroom. This study may result in giving the awareness for the world of education that integrating ecological aspects in learning practices is significant.

This study also demonstrated that HCMCL can promote students' critical thinking; their communication, reasoning and self reflection. The students' use of

linguistic conventions was at a reasonably high level of complexity. It seems that they also understand their audience. They interacted with their peers both inside and outside the classroom. The short-term goal of communication was concerned; the students achieved it by presenting their essay on the Internet. An increase ability to switch between registers was evident, although they still have a limited vocabulary and grammar. The logic of students' organization was also found. Their use of certain cohesive devices such as conjunctions, equivalent words, and pronouns was competent but very basic. It demonstrates the students' ability to promote appropriate reasoning. In this class, the students were involved in the completion of sets of complex tasks where peer collaboration was crucial for the success or failure of projects. The output of collaboration was self-reflection, since students were invited to report on their experience of participation in the group. Meanwhile, the content of the task also helped raise students' awareness of trending issues and served as a stimulus for engaging them in controversial issues that demanded discussion skills.

From this study, it can be inferred that there are no lectures or emphasis on knowledge transmission but instead there was mentored and purposeful engagement; exploration, reflective actions, participation alongside with the lecturers, and feedback from peers. Throughout this process, there is an engagement in critical thinking process. In other words, HCMCL enables the juxtaposition of active learning. In the side of lecturers and students, it was clear that many advantageous can be taken while implementing HCMCL, for example, sharing writing in online forum gives them a wider sense of audience in that they

are not only writing for their lecturers but also their peers so that they can focus on writing solely as a means of sharing knowledge and sharing expression, offering multiple occasions for students to showcase their writing in progress since it was done synchronously (not in real time), commenting can be saved and archived provides opportunities for students and lecturers to examine both past and current feedback (in this case, the students were given the chances to gain deeper insight while the lecturer can monitor students' conversations and redirect them to give more specific and critical viewpoints if they find that any learners are giving comments that are too superficial or unhelpful), keeping the writing and commenting processes fluid and interactive so that peers and instructor can engage jointly in considering each others' writing, providing the chance of peers' online comments more honest and trustworthy, focusing more on mechanicsstructure- content- and the process of writing itself, drawing more comments from students, and encouraging a sense of group knowledge and trust in its value as it is shared by familiar people who share similar struggles and are vested in the same goals.

5.3 Suggestions

Based on the research findings, the following recommendations for further study are made; firstly, For the future researcher, this study is only focused on the participants' written language so that the future study could give its concern on their oral communication, or a combination of the two. In general, the findings are not generalizable to any specific population, rather this case study produces a single piece of evidence that can be used to seek general patterns among different

studies of the same issue. Secondly, this study demonstrated that the scaffolding provided becomes important factor influencing the success of the collaboration and the study. A future study could look specifically at effects of different types, levels, and conditions of scaffolding. Thirdly, this study showed that collaborative skills, including social skills, played an important role and many students lacked those skills. To address this deficiency, a future study may wish to consider integrating collaborative skills into the research project. Fourth, this study used the notion of critical thinking in language learning based on three categories, i.e; communication, reasoning and self reflection. The other study may consider the definition of critical thinking from other experts in order to get more comprehensive future research. At last, the study revealed some proofs that ecological systems bounds on students as individuals was very influential contributing toward students development in learning especially train them to experience the process of critical thinking. Future study should raise the aspects of ecological literacy for the school practice especially in ELT context.

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