融合文學討論圈以培養大一英文學生的批判性思考

Cultivating Critical Thinking through Integrating Literature Circles into EFL Freshman English Classes

By

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ABSTRACT

Many educators believe that skillful thinking is one of the most important goals of education (Bell, 2003; Davidson, 1996; Day, 2003; Facione, Giancarlo, Facione, & Gainen, 1995; Long, 2000; Tillman, 1994). Contemporary societies often require people in various professions to possess not only remarkable knowledge, but also strong thinking skills, also referred to as critical thinking or higher order thinking skills. This study investigated the effects of integrating literature circles into freshman English classes on cultivating critical thinking skills among adult Taiwanese EFL learners. In addition, this study examined, from the participants' perspective, the influence taking part in Literature Circle (LC) had on shaping EFL learners' thinking processes.

A mixed-method approach was adopted with 57 Taiwanese freshmen studying English as a foreign language. Data was collected using both quantitative and qualitative methods, including pre- and post-course self-assessments of critical thinking, an open-ended questionnaire, and a critical thinking assessment checklist. Two groups of learners, computer-mediated and in-class face-to-face literature circle

discussions, were compared in terms of the questions they raised during the literature circle discussions. These questions were analyzed as an indication of the development of the participants' critical thinking skills by using the critical thinking assessment checklist. Further, the open-ended questionnaire of this study provided insights on the adult second language learning and shed light on the effects of integrating literature circles on peer interaction during the reading process.

The results of the study showed that participants' reading strategies and behaviors in both the in-class face-to-face and computer-mediated groups were positively affected after a year of participating in literature circles. Furthermore, the results of the Self Assessment of Critical Thinking survey indicated that no significant difference was found between the critical thinking of the participants in the two groups. In other words, improvement was found in both groups as measured by a rise in levels of Bloom's Taxonomy. As for the results from the qualitative data, growth was found in participants' critical thinking skills in both groups. Furthermore, the results of the open-ended questionnaire indicated that a majority of the participants in this study favored literature circles and claimed that literature circles enhanced their language skills such as reading and speaking. More importantly, many participants pointed out that literature circles increased their awareness of critical thinking.

Key words: literature circles, critical thinking

融合文學討論圈以培養大一英文學生的批判性思考

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摘要

許多教育學者認為技巧性思考是教育重要目標之一。現今社會不但要求人們有專業上的知識，更需要有深度的思考技巧，也可以稱為「批判性思考」或「高次想法技能」。本研究透過英文課堂中融入文學討論圈，培養台灣成人第二語言學習者之批判性思考能力。再者，此研究報告以參與者的角度切入，探討文學討論圈如何幫助第二語言學習者的思考過程。

研究者希望課堂中透過此文學討論圈有助於培養並提升學生對批判性思考能力的察覺。報告採質量並行的方法，針對 57 位台灣大一英文學生進行研究。本資料數據採樣包括上下學期學生批判性思考之自我評量、批判性思考評量表及開放式問卷。學生分為電腦虛擬及課堂文學討論圈兩組。兩組學生於實驗中、 後進行自評; 研究者以批判性思考評量表為基準，針對學生提出的問題進行分析，比較兩組學生批判性思考之表現。此外，本研究透過開放式問倦進而了解成人第二語言學習者融入文學討論圈中，所產生之同儕互動及學習成效。

研究結果顯示不論是電腦虛擬或課堂面對面討論的參與者，在參與文學討論圈活動一年後，學生批判性思考之自我評量結果顯示他們的閱讀方式和閱讀行為有正面的改進。此外，兩組間的批判性思考並沒有顯著的不同。

批判性思考評量表之質化分析結果指出，大多數的研究參與者的批判性思考技巧有顯著的進步。再者，開放式問卷的結果顯示多數的參與者對於文學討論圈皆持肯定的態度，同時他們也表示文學討論圈提升他們的語言技巧如閱讀和口說

能力。更重要的,很多參與者指出文學討論圈增加他們對批判性思考能力的察覺。

關鍵字：批判性思考, 文學討論圈

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CHAPTER 1

INTRODUCTION

Background of the Study

Throughout history educators have believed that skillful thinking is one of the important objectives of education (Bell, 2003; Davidson, 1996; Day, 2003; Facione, Giancarlo, Facione, & Gainen, 1995; Long, 2000; Tillman, 1994). Today's society often requires people who are in different professions to possess not only remarkable knowledge, but also strong thinking skills (also referred to as critical thinking or higher order thinking skills). However, many Asian learners are taught to be passive thinkers throughout school life. They are not given much opportunity to practice their own thinking skills such as reasoning, analyzing, problem solving, and decision making. For example, in most schools in Taiwan, tests and exams are the most important elements, resulting in the phenomenon of learners being taught only to prepare for weekly quizzes or monthly tests. In order to emphasize the importance of critical thinking to ESL/EFL learners, researchers have explored cultivation of critical thinking skills among ESL/EFL learners (Browning, Halvorsen, & Ahlquist, 1996; Davidison, 1996; Day, 2003; Kamada, 1996, Long, 2000; Stapleton, 2002).

Reading and thinking are often considered to be strongly connected (Brown, 2002; Day, 2003; Patterson, 1993). For example, readers sometimes raise questions about readings in which their own ideas or beliefs have been challenged (MacKnight, 2000; Wood & Anderson, 2001). Therefore, critical thinking is needed in order to be able to compare, analyze, evaluate, and judge while reading the text. Since critical thinking has been viewed as an important element in reading, critical thinking abilities must be emphasized and taught in language classroom, especially in reading

classes.

Literature circles, small discussion groups of learners who actively engaged in reading and discussing a piece of literature, are a useful method to promote reading and encourage responses to, and opinions of, literature through discussion, since literature discussion involves communicating and thinking (Bell, 2003; Brown, 2002; Day, 2003; Gokhale, 1995; Ketch, 2005; MacKnight, 2000; Tillman, 1994). Learners not only read and discuss the interesting literary selection in the literature circles, but also raise and discuss questions in depth in order to develop their higher order thinking skills (Ediger, 2002; Ketch, 2005).

Statement of Problem

The conventional teacher-centered instructional approach has widely prevailed in Taiwan. In reading classes, the interaction commonly follows the pattern whereby the students read after the teacher. Accordingly, EFL learners read not for pleasure but for preparing teacher's assignment or entrance examinations. In Taiwan, pleasure reading is often not promoted or even neglected during the early school years, and reading in English is uncommon. Hung (2002) found that most of the university students in her study spent less than one hour reading per month after school. For reading quantity, Hung reported that 83% of the students completed less than 1-2 books in a year. The findings demonstrate a serious problem where many Taiwanese students have not cultivated regular English reading habits in their free time. Therefore, the current study used literature circles in English reading classes because they not only helped learners to read more, but also stimulated their thinking ability. This unique way of learning was valuable because learners could freely share their thoughts and opinions with one another (Brown, 2002; Day, 2003; Ediger, 2002; Lin, 2006). During discussions, connections between texts and personal experiences will

be made and a variety of questions asked, which deepen learner understanding and their thinking skills. The role of questioning is significant because it "promotes thinking" (Blank-Libra, 1997). Given the apparent benefits of literature circles in learner learning, more detailed investigation of the effectiveness of cultivating critical thinking through the use of literature circles is crucial.

Purpose of the Study

The purpose of this study was to investigate the effects of integrating literature circles into freshman English classes on cultivating critical thinking skills among adult Taiwanese EFL learners. The researcher examined the differences between two groups of learners where one was in-class face-to-face and the other was computer-mediated discussion. In both groups, participants' questionings, an important element in evaluating learners' critical thinking, was the main focus of this study. Benjamin Bloom's taxonomy (1956) was adopted when participant questions were analyzed. In addition, how the participants perceived this learning experience in both face-to-face and online literature discussion groups was evaluated.

Research Questions

1. Are there any differences between in-class and online discussion groups in terms of their critical thinking? If yes, what are they?
2. Are there any differences in the critical thinking skills of participants before and after they participate in the literature circles for a school year? If yes, what are they?
3. How do participants perceive the learning experience in both the in-class and online literature discussions?

Definition of Terms

1. Critical thinking

The definition of critical thinking is complex and varied. It is heavily influenced by the objectives or goals of individual professors. Problem solving and decision making both depend on critical thinking. Discussing and arguing about a controversial issue also require critical thinking (Carroll, 2004; Gokhale, 1995; MacKnight, 2000). In this study, the definition of critical thinking mainly focuses on the way participants question during the literature circles. This is because asking higher order thinking questions has been identified essential in developing critical thinking (Blank-Libra, 1997; Wood, 2001). Participants' critical thinking will be measured using the Hierarchy of Bloom's Taxonomy.

2. Bloom's taxonomy

Bloom's taxonomy was proposed in 1956 by Benjamin Bloom. The taxonomy divides educational objectives into three domains, the affective, psychomotor, and cognitive (Clark, 2007). In this study, the "cognitive" domain was our focus. The "cognitive" domain consists of six cognitive processes that are categorized from simple recall or recognition of facts to more complex and abstract mental level. Level 4-6 are considered higher order thinking. The following chart provides a clear understanding of Bloom's taxonomy:

Level 1 Knowledge	The recall of specific information
Level 2 Comprehension	An understanding of what was read
Level 3 Application	The converting of abstract content to concrete situations
Level 4 Analysis	The comparison and contrast of the content to personal experiences
Level 5 Synthesis	The organization of thoughts, ideas, and information from the content
Level 6 Evaluation	The judgment and evaluation of characters, actions, outcome, et., for personal reflection and understanding

(cited in Clark, 2007)

Significance of the Study

This study provides EFL teachers with important ideas and suggestions for helping students develop critical thinking skills. First, this study helps EFL teachers to gain a better understanding of what face-to-face and online literature circles are and how they benefit learners through discussions and thoughts sharing on English literature within a small group. Second, the study shows how learners' critical thinking will be positively affected through participation in literature circles. The connection between critical thinking and literature circles in this study aims to provide valuable insights for educators, researchers, and schools concerned with the implementation of literature circles in English teaching, especially those who have a desire to help EFL learners improve both their reading and thinking skills.

CHAPTER 2

REVIEW OF THE LITERATURE

This chapter has four major sections — critical reading, critical thinking, literature circles, and the connection between literature circles and critical thinking. The first section explains what critical reading is and how it is related to critical thinking. The second section covers a brief history of critical thinking, the values of critical thinking, two theories related to critical thinking, the instruction of critical thinking, and its application in ESL/EFL settings. The third section illustrates the definition of literature circles, the benefits of literature circles, the use of literature circles in an ESL/EFL environment, and computer-mediated communication. The last section connects literature circles and critical thinking followed by a summary of the above major areas.

Critical Reading

Teaching students who speak English as a second language or as a foreign language to read and think is one of the challenges to many language teachers (Crismore, 2000). Critical reading has been viewed as an important element in language learning because many language learners are often required to read critically, especially in college level, in order to understand the text they read and be able to recognize the fact, interpret the meaning of the text, and analyze the text with personal knowledge and past experiences (Crismore, 2000; Shaila & Trudell, 2010). According to Hamblen (1984), critical reading refers to "a careful, active, reflective, analytic reading" (cited in Khorsand, 2009). Paul and Elder (2008) stated that critical reading is "the art of analyzing and evaluating text and thinking with a view to

improving the nature of thought" (cited in Tomasek, 2009). In actual practice, critical reading and critical thinking work together. Critical thinking allows readers to monitor their understanding as they read ("Critical Thinking,"1997). Critical thinking depends on critical reading, meaning one thinks critically about a text (critical thinking) only if one has understood it (critical reading). Readers try to negotiate what they know with what they are trying to make sense of. In other words, readers are trying to connect their personal background knowledge and past experiences with the text they read (Decker, 1993).

Critical reading and thought-provoking activities or exercises help learners develop the skills they need in order to become better readers ("Critical Thinking,"1997; Khorsand, 2009). Among different variety of cognitive processes suggested by various authors, most of the processes are similar to Bloom's taxonomy (Khorsand, 2009). The six processes of Bloom's taxonomy provide a framework that encourages language teachers to create learning activities that foster critical reading abilities (Khorsand, 2009). According to Surjosuseno and Watt (1999), the higher level of the cognitive process in Bloom's taxonomy, including analysis, synthesis, and evaluation, is based on the lower level ones, including knowledge, comprehension, and application. In addition, each cognitive process is interdependent in relation to the others; therefore, when language teachers plan a particular activity, Bloom's taxonomy can be modified to meet the needs of the learners and can become a useful tool to promote critical reading.

Critical Thinking

Brief History of Critical Thinking

There is a lack of consensus among theorists as to what critical thinking is. The original root of critical thinking in a teaching practice can be traced back to the great

philosopher of ancient Greece, Socrates, who established important ideas of critical thinking 2500 years ago. He highlighted the importance of "clarity" and "accuracy" through asking deep questions, seeking evidence, examining reasoning and assumptions, and analyzing basic concepts. These actions can stimulate our thinking before we accept ideas as worthy of belief (Carroll, 2004). His work influenced many later philosophers, including John Dewey.

John Dewey, an American philosopher, psychologist, and educator, made significant contributions to the conceptualization of critical thinking. Dewey (1909) introduced the concept "reflective thought." He defined the nature of reflective thought as "active, persistent, and careful consideration of any belief or supposed form of knowledge in the light of the grounds that support it and the further conclusion to which it tends" (p.9). Dewey's definition of critical thinking was based on the premise that thinking is an "active" process, which is characterized by thinking through questioning and searching for relevant evidence. This is totally different from the "passive" thinking process in which information is received without thinking or questioning. Because of Dewey's influential view on critical thinking, "learning to think" has become the predominant goal of education (Halpern, 1997; Skilbeck, 1970).

In the 1960s, Robert Ennis (1962), a philosopher of education at the University of Illinois, first defined critical thinking as "the correct assessing of statements" (p.83). He described 12 aspects of critical thinking (e.g. grasping the meaning of the statement, judging whether certain statements contradict each other, and judging whether a statement is specific enough) and three dimensions (logical, criterial, and pragmatic) of critical thinking. The objective behind defining these aspects of critical thinking is to help people avoid making errors and enable people to correctly evaluate statements. Subsequently, Ennis developed tests for the evaluation of critical thinking

skills. Later in the eighties, Ennis modified his definition of critical thinking. He redefined critical thinking as "reasonable reflective thinking that is concerned with what to do or believe" (p.12). Ennis' revised definition highlights the importance of possessing the "abilities or dispositions" of critical thinking (Thayer-Bacon, 2000). According to Ennis, critical thinking can be taught as a general subject. In other words, critical thinking can be learned independent of specific disciplines, and can be transferred from one domain to another (Evers, 2007; Mason, 1999; Thayer-Bacon, 2000).

John McPeck (1990), a Canadian philosopher, on the other hand, claimed that critical thinking can only be taught within a specific subject domain because it needs to be linked with specific areas of knowledge, such as critical thinking of English literature or critical thinking of psychology. According to McPeck, critical thinking can be learned if one possesses thorough knowledge and understanding of the content of a particular discipline (Mason, 1999; Thayer-Bacon, 2000).

Various philosophers defined critical thinking differently, but they all characterized critical thinking as a "process." There are also a great number of other theorists with different perspectives on critical thinking. Some viewed critical thinking as a process of evaluation, some considered it as a process of thinking, and some defined it as a means to an end. However, no single belief is necessarily more important than the others. In this study, critical thinking will be defined as the ability to raise higher order thinking questions. In other words, the researcher believes that good critical thinkers have inquiring minds and are able to raise appropriate thinking and clarifying questions. This study also emphasizes critical thinking as a learning process which involves the integration of literature reading, literature discussions, and thinking.

Teaching Critical Thinking

Why teaching critical thinking? Critical thinking is extremely important in this ever-increasing complicated world. It is involved in many different aspects of human life, affecting everyday decision making and evaluations of important events. It is widely argued that critical thinking should be taught and integrated into the educational curriculum (Bell, 2003; Davidson, 1996; Facione, Giancarlo, Facione, & Gainen, 1995; Long, 2000; Tillman, 1994). However, traditional views of education in many Asian countries tend to see learners as passive learners (Browning, Halvorsen, & Ahlquist, 1996; Kamada, 1996; Long, 2000). Critical thinking is not strongly encouraged, which has lead to serious problems in long term learning in Asia, according to critics. Asian education not only discourages critical thinking, but also stops learners from thinking. In addition, learners are not assumed to have any responsibility for their education since the teacher is the one who makes all the decisions on what should be studied and how learning will be evaluated (Brown, 1997; Patterson, 1993; Tillman, 1994). In an early study, Goodlad (1983) pointed out that "three-fourths of the classroom time was spent on instruction that mainly involved teachers talking to learners…. Children were called on more often to recall facts rather than to use higher level thinking skills" (Goodlad, 1983, cited in Tillman, 1994). Tillman (1994) further indicated that "many young people were unable to think beyond the comprehension level of Bloom's taxonomy". The problem of the lacking of critical thinking ability in learners shows that there is a strong need for educators and schools to implement critical thinking as part of the educational curriculum, especially in second language teaching and learning.

However, the issue of whether critical thinking skills should be taught at school has been debated for years. An article in the April, 28, 1995, issue of the Chronicle of Higher Education, makes the following claim:

Critical thinking is at the heart of effective reading, writing, speaking, and listening. It enables us to link together mastery of content with such diverse goals as self-esteem, self-discipline, multicultural education, effective cooperative learning, and problem solving. It enables all instructors and administrators to raise the level of their own teaching and thinking (cited in Woolfolk, 2004).

The above statement claimed that critical thinking is a crucial element in learning reading, writing, speaking, and listening. Critical thinking also has the power to influence people in many areas in which higher levels of thinking can be reached. For example, some educators suggest using Cognitive Research Trust (CoRT), one of the world's most respected techniques on teaching thinking skills, in developing learners' critical thinking and intellectual skills (Barak & Doppelt, 1999). On the other hand, however, Hirsch (1996) stated that "the research regarding critical thinking is not reassuring. Instruction in critical thinking has been going on in several countries for over a hundred years. Yet researchers found that [many learners] who have been taught critical thinking continue to fall into logical fallacies [where the reasons offered in an argument do not support the conclusion]." (cited in Woolfolk, 2004). In addition, Polson and Jeffries (1985) reported that there was insufficient evidence to demonstrate the effectiveness of the CoRT program after 10 years of use. Several critics have stated that teaching critical thinking actually "hinders rather than helps learning" (cited in Woolfolk, 2004).

Although the debates over teaching critical thinking continue to rage, a number of researchers have attempted to show that teaching critical thinking is vital to education and affects learners in many ways. For example, research indicates that teaching critical thinking skills can promote learners' intellectual growth and increase their academic achievement (Browning, Halvorsen, & Ahlquist, 1996; MacKnight, 2000; Kassem, 2005). Critical thinking can "monitor our own thinking to improve our

thinking" (Bell, 2003). Furthermore, instruction in critical thinking enables learners not only to think critically but also to become proficient in the written and the spoken word (Bell, 2003).

Theories

The following theories, cognitive theory and humanistic theory, are both relevant to critical thinking. Both theories address the cognitive and affective aspects of critical thinking at the individual level. It is believed that when these theories are applied into the instruction of critical thinking, the development of critical thinking in learners can be anticipated. To better understand the concept of critical thinking, the cognitive theory, humanistic theory, and collaborative learning are explored and illuminated.

1. Cognitive theory

The cognitive theory of learning states that learning takes place not only from how teachers present a particular reading material, but also how learners process the information themselves (Brown, 1997; Kassem, 2005). According to Piaget, the term "autonomy" refers to the ability to think for oneself. This is the skill needed for critical thinking. According to Kamii, Clark & Dominick, cited in Brown (1997), "children who are discouraged from thinking critically and autonomously will construct less knowledge than those who are confident and do their own thinking." Proponents of cognitive theory strive to help learners learn autonomously and think critically in all domains, including school work and real life problems.

2. Humanistic theory

Humanistic theory recognizes the affective aspect of student learning. Humanists

argue that learners' personal meanings and feelings are strongly connected to their learning experience. They believe that self-esteem is an important element in successful learning and intellectual development (Brown, 1997; Kassem, 2005; Tillman, 1994). Humanists encourage learners to pursue personal meaning in learning. Dembo, cited in Brown (1997), pointed out that "it is this personal meaning that will propel the student onward to higher thought processes and eventually into critical thinking."

3. Collaborative learning

Tomasello, Kruger, and Ratner stated, "collaborative learning is a group of peers strives to understand each other and learning occurs in the process" (cited in Woolfolk, 2004). Vygotsky (1978) believed that true learning happens in activities that involve interactions. He went on to say that higher mental functions, such as reading and critical thinking, must not be reduced. Instead, they should be studied, taught, and learned in activities that allow significant learning and development. Vygotsky (1994) emphasized the critical importance of the social contact and communication between peers for cognitive development. Social interactions and higher levels of thinking are interrelated due to the continuity of giving responses and feedback to one another on a social level. Among students in a group, there is a growth in a sense of belonging and responsibility to a collaborative learning community (Kennedy & Duffy, 2004). This shared learning gives learners opportunities to engage in discussions, take responsibility to their own learning, and eventually become critical thinkers.

The ideas of cognitive, humanistic, and collaborative learning theories can be used in many ways to assist learners in EFL reading classes. Teachers can use group work so that learners will not only have the benefit of discussing and exchanging

thoughts and experiences with one another, but also be provided with the opportunity to think autonomously. In addition, learners can closely observe the behavior of their peers and evaluate their own progress in thinking. The process of group discussions in a reading class can provide learners with the opportunity to discuss questions, and connect this learning experience with their personal meanings and feelings. More importantly, critical thinking gradually develops as a result of student engagement with, observation of, and evaluation of, their own group discussions (Browning, Halvorsen, & Ahlquist, 1996; Kamada, 1996; MacKnight, 2000; Tillman, 1994).

Instruction of Critical Thinking

There is no agreed upon methodology for teaching critical thinking. Brown (1997) used classroom debate as a means to provide learners with the opportunity to sharpen their thinking skills. Patterson (1993) used children's books to promote critical thinking skills among fourth grade learners in a rural elementary school. MacKnight (2000) taught critical thinking at the University of Massachusetts through online discussions. In addition, Downs (2000) presented a study where the teacher taught critical thinking in a Freshman Composition classroom. Critical thinking skills are often integrated with the educational curriculum, especially at the college level. However, learners will not be able to undertake critical thinking unless they are given specific instructions which are related to their subject field. Integrating the instruction of critical thinking with a particular subject area is one of the most effective ways to develop learners' abilities to transfer and apply thinking skills to that particular or similar subject outside of school (Patrick, 1986; Kassem, 2005; Tillman, 1994).

Teaching Critical Thinking to ESL/EFL Learners

Several decades prior to the 1990s, critical thinking became popular and was

widely implemented in many university courses, particularly in educational institutions in the United States and Canada. This trend has also affected the fields of second and foreign language teaching and learning inside and outside of the United States (Day, 2003; Long, 2000). When critical thinking was integrated with ESL/EFL curriculum, it made its first presence known in composition courses. Critical thinking subsequently has become an integral part of ESL and EFL reading courses (Day, 2003).

Nevertheless, there are some arguments against the integration of critical thinking instruction into ESL/EFL classrooms. Atkinson (1997) argued that critical thinking is inappropriate for ESL/EFL and teachers should be extremely cautious when incorporating it into ESL/EFL instruction. Atkinson believed that critical thinking is in fact a "social practice" that represents western cultures and values affiliated with English speaking nations. He further explained that critical thinking is "cultural thinking;" therefore it is difficult for ESL/EFL learners to understand.

Davidson (1998), by contrast, argued that critical thinking should be taught to ESL/EFL learners because one of the objectives of language teaching is to help learners communicate or interact with native speakers of English. This is especially true to many ESL/EFL learners who plan to study in an English-speaking country. In many English-speaking classrooms, at the college level, learners need the ability to critique, argue, predict, comment, and express their own opinions. Davidson thus believed that ESL/EFL teachers have the responsibility to introduce critical thinking to ESL/EFL learners, especially those who plan to enter higher education in English speaking countries.

At the 1997 conference in Singapore, several presenters from Malaysia, Singapore, the Philippines, and other Asian countries, reported how they had been able to incorporate critical thinking into their EFL curriculum (Davidson, 1998).

Furthermore, Davidson and Dunham (1996) conducted a pilot study using a "commercially available critical thinking essay test" (p.122). They found that the learners who received the treatment, critical thinking-imbedded ESL instruction, performed significantly better than the control group receiving only the traditional intensive academic English instruction.

Day (2003) also disagreed with Atkinson's position that teaching critical thinking is not beneficial. Day, at University of Hawaii, has found that many of his ESL learners are open to the opportunity of being taught critical thinking. In addition, Littlewood (2000) examined 2307 learners from eight East Asian countries and three European countries. Learners in this study responded to the following statements:

1. In the classroom I see the teacher as somebody whose authority should not be questioned.
2. I see knowledge as something that the teacher should pass on to me rather than something I should discover myself.
3. I expect the teacher (rather than me myself) to be responsible for evaluating how much I have learnt. (Littlewood, 2000, p.32)

The learners had to decide whether they "strongly agreed, agreed, were neutral, disagreed, or strongly disagreed' with each statement (p.32). The results indicated that the learners do not want to passively and blindly receive information from the teacher. Instead, they want to have opportunity to explore knowledge and be responsible for their own learning. Another study, Stapleton (2002) conducted an attitude survey of 70 Japanese university learners. The learners had to fill out a nine-item questionnaire in an EFL writing class. The questionnaire was about learners' perceptions of several aspects of critical thinking. The result showed that the learners were not hesitant in expressing opinions that are in opposition to those of their teachers. Stapleton concluded that "teachers no longer need to hesitate to

introduce critical thinking to [EFL learners]" (p.256).

Several researchers pointed out that ESL/EFL learners' critical thinking skills can be fostered if teachers provide them with suitable projects or activities and sufficient time to give and receive comments from one another (Browning, Halvorsen, and Ahlquist,1996; Kamada,1996; Long, 2000). For instance, in Japan from Hirosaki University, Kamada (1996) used "panel discussions" as an effective way in developing learners' critical thinking in a Comparative Cultures class. During the panel discussions, learners were given opportunity to present their individual thoughts on a particular topic and subsequently asked to comment on each other's opinions. Kamada concluded that learners' critical thinking could be developed if they possessed the skills and means to express their original thoughts to others.

In addition, Browning, Halvorsen, and Ahlquist's (1996) demonstrated that "shared inquiry" can foster EFL learners' critical thinking skills. This approach to reading and discussion has proven effective with a wide range of Japanese learners. Learners first interacted with a piece of literature in a pre-reading activity, which helped them make connections between their own life and the themes or ideas of the literature. After the learners became familiar with the text, they were given about 60-90 minutes to discuss in the "shared inquiry" discussion with the teacher as an inquirer. The researchers concluded that "shared inquiry" method offers possibilities for developing EFL learners' reading and communication skills. More importantly, critical thinking skills were also cultivated.

The current study will use "literature circles" as a learning approach to help learners develop their critical thinking skills. Therefore, the researcher will provide a clear explanation of what "literature circles" are and how they can be used to develop learners' critical thinking in an ESL/EFL setting.

Literature Circles

What are Literature Circles?

Daniels (1994) brought up his idea of literature circles and has influenced many language acquisition researchers (Alwood, 2000; Kim, 2004; Sai & Hsu, 2007), literacy experts (Day, 2003; Pitman, 1997), and L1 and L2 educators to passionately adopt it as a special teaching technique. Daniels described literature circles as small, temporary groups of learners who gather together to discuss a piece of literature (a story, a poem, or a book) in depth, which is a learning method that allows learners to become critical thinkers as they engage in ongoing dialogue about a book (Daniels, 1994). All the groups meet on a regular schedule to discuss their reading during class time, and they assume responsibility in preparation for the group discussion. They bring their written notes to guide their reading and discussion. During discussion, learners raise and respond to questions that are related and connected to the reading. Personal thoughts, ideas, problems, and comments are freely expressed in this non-threatening environment. When introducing literature circles, learners are taught to be responsible in their group discussion by explicit teaching of the various roles. Learners will interchange as the book changes. The roles that learners may assume are in the following:

1. Summarizer: offers a brief summary of the reading.
2. Question Writer: creates a number of questions about reading to increase comprehension.
3. Connector: finds a way to connect the reading to his or her own life, world knowledge, or other texts.
4. Vocabulary Enricher: selects a few words that might be challenging, interesting, or important. He/she needs to provide a definition and an example for each word.

5. Illustrator: draws some pictures, diagrams, flow charts, or cartoons that are related to the reading.
6. Passage Master: decides which passages or paragraphs are worth discussing, and provide reasons for selecting them.
7. Character Captain: selects three adjectives that describe one or more of the characters in the novel, and support the selection with an example from the reading.

(cited in Daniels, 2002; Day, 2003)

Among the various roles in literature circle, this study mainly focused on the roles of question writer and connector because participants' questions were used as an important indicator of their thinking. One common phenomenon of the educational culture in many Asian countries is that questions are not strongly encouraged in language classrooms. Therefore, students become passive and learn not to ask questions. However, the educational significance of questioning in language learning has become popular and highlighted (Gelder, 2005; Yang, 2006; Yang, 2008). According to Wilen, Ishler, Hutchison, and Kindsvatter (2000), questioning is an effective skill to "stimulate students' interaction, thinking, and learning" (cited in Wood & Anderson, 2001). Since questioning is a useful tool in enhancing learners' thinking, one of the goals of this researcher was to investigate whether students' questioning had been improved after participating in literature circles for a year.

Benefits of Literature Circles

Literature circles were first introduced over a decade ago and are now widely used in many language classrooms all over the world. In first language education, language teachers have been using literature circles to motivate learners in reading, and promote student literacy and literature appreciation (Kim, 2004). Various studies

have demonstrated that literature circles have a positive impact on developing learners' literacy skills, fostering stronger relationship between readers and the text, and helping learners become thoughtful, confident, and critical readers (Alwood, 2000; Brown, 2002; Day, 2003; Ediger, 2002; Lin, 2006; Pitman, 1997). Baron (2000) reported that second grade learners who participated in literature circles developed literacy skills and were able to connect themselves as readers to the reading they had read. Furthermore, McElvain proposed in his study that many "at-risk English learners" in the experimental classes made significant progress in reading comprehension after participating in literature circles for 9 months. This literature-circle base curriculum also increased learners' confidence and retention of important ideas from their reading (McElvain, 2005, as cited in Sai and Hsu, 2007). Zieger (2002) demonstrated many positive impacts of using literature circles on her learners. By participating in literature circles, learners were given opportunity to read and discuss in groups. These discussions help learners gain understanding of the story. Furthermore, the learners learned to summarize, make inferences and connections, develop their vocabulary, ask relevant questions, and provide appropriate responses. In the study of non-fiction, Pitman (1997) reported that literature circles enhanced learners' reading skills, gained self-confidence, and improved oral and written communication.

Literature Circles in ESL/EFL Classroom

Literature circles are not only used in first language education, but are also integrated into many ESL and EFL curricula. Second language researchers agree that literature circles are an effective method in providing ESL/EFL learners opportunity to enjoy reading experience in English (Chiang, 2007; Hsu, 2004; Kim, 2004; Martinez-Roldan and Lopez-Robertson, 1999; Sai and Hsu, 2007). Martinez-Roldan

and Lopez-Robertson (1999) initiated literature circles in a first-grade bilingual classroom. They encouraged learners to listen to one another, ask and respond to questions of other members of the group. The results indicated that the learners' responses to literature were positive and fell into seven categories: noticing illustrations, making connections between books, using references, connecting life experiences with literature, noticing patterns, noticing print conventions, and making inferences. No matter what linguistic background the learners had, these bilingual learners were able to have rich discussions when they were given regular chances to engage in literature circles.

In a similar study, Kim (2004) identified five major themes in his ESL face-to-face literature discussions, which were literal comprehension, personal connections, cross-cultural themes, interpretation, and evaluation. All of these themes indicated that learners were able to make connections between texts and even to personal life experiences. The participants in Kim's study mentioned that literature circles not only helped them engage deeply in interpreting the text, but also motivated them to enjoy reading in the target language. Lin (2006) conducted a study as a Taiwanese graduate learner in Kaohsiung Normal University. She ran through a number of literature circles in a fifth grade Chinese-English bilingual program, which consisted of 25 learners in a 15-week semester experiment. In the end, she found that her learners did improve their reading comprehension. Further, the learners developed useful reading strategies, were attracted to literary work, and appreciated the process of L2 literature circles (cited in Sai & Hsu, 2007).

Literature circles thus appear to be a unique and effective teaching method, especially in the environment of ESL/EFL where the target language is only used inside the classroom. The benefits of literature circles do provide ESL/EFL learners opportunities to discuss in reading classes in which they add new meanings to

English literature with their own cultural values and beliefs. In short, this valuable learning experience allows learners to temporarily flee from their traditional teacher-centered classroom into a new and motivating student-centered learning environment.

Computer-mediated Communications

Computer-medicated communications has become increasingly debated and adopted since the advent of computers and especially, the Internet. During the past decade, the ability to connect learners with networked computers has opened new opportunities for authentic communication settings (Ortega, 1997).

Computer-mediated communications can be either synchronous or asynchronous (Li & Cao, 2006; Warschauer, 2001). Asynchronous conversations can be accomplished by sending and receiving massages by e-mail, electronic bulletin boards, or online conferencing programs, which provide participants flexibility of time and pace (Li & Cao, 2006; Young, 2003). On the other hand, synchronous computer-mediated communications allow learners to create, exchange, discuss, and perceive information via discussion software programs or by the Internet, using a variety of chat media such as Multiuse Object Oriented systems (MOOs) and Messenger (MSN) (Li & Cao, 2006; Warschauer, 2001; Young, 2003). It not only allows one-to-one communication, but also one-to-many, allowing learners to share and discuss with a partner or a group. This study uses virtual literature circles, a form of synchronous computer-mediated communications, consisting of a small group of learners who discuss literature through the use of online discussion.

Compared to computer-mediated discussions, face-to-face literature discussions occasionally fail because learners may not prepare for their assigned roles or readings ahead of the coming literature circle meeting. They may also rely too heavily on the

discussion role sheets, which result in lower engagement in the discussion process (Wolsey, 2004). Although face-to-face literature discussions offer the advantage of social interaction, which allows learners to ask questions, share opinions, or disagree with a point of view of others, such interactions may also be fostered through computer-mediated discussions (Moore & Marra, 2005). Computer-mediated communication is different from face-to-face conversation in several ways. For example, in virtual literature circles, whether responses are given depends on the readiness of the learners, since computer-mediated communication gives participants more time to think and prepare an answer or response (Li & Cao, 2006; Staarman, 2003; Young, 2003). Many researchers have pointed out that computer-mediated literature discussions are effective tools in developing more interactive and collaborative discussions since they provide opportunity for learners to construct knowledge together (Gambrell, 2004; Jonassen, 2001; Leh, 1999; Staarman, 2003; Warschauer, 2001). Student motivation is thereby increased as the focus of the discussions change from language form to language use in a meaningful context (Leh, 1999; Warschauer, 2001).

In addition, many researchers have argued that computer-mediated discussions have the potential to cultivate learners critical thinking skills (Caverly & Peterson, 2005; Fauske & Wade, 2003-2004; Goh, Dexter & Murphy, 2007; Guiller, Durndell, & Ross, 2008; Li & Cao, 2006; Moore, J. L. & Marra, R. M., 2005; Yang, 2008; Zhang, Gao, Ring & Zhang, 2007). Reflective, critical thinking skills likely developed due to the active exchange of ideas learners add to or challenge one another within small discussion groups. The process of learners giving, receiving, sharing, and responding to ideas stimulate their thinking to move to higher levels, thus enabling them become better critical thinkers (Gambrell, 2004; Goh, Dexter & Murphy, 2007; Wickersham & Dooley, 2006). However, several researchers (Yang,

2008; Zhang, Gao, Ring & Zhang, 2007) have observed that critical thinking is better fostered with the instruction of questioning skills and the involvement of the instructor when discussing online.

Computer-mediated communications can also benefit learners in second language learning (Greenfield, 2003; Yang, 2008; Zhang, Gao, Ring & Zhang, 2007). First, several researchers have argued that computer-mediated communications can create more equal participation among second language learners (Warschauer, 1997; Warschauer, 2001; Young, 2003; Zhang, Gao, Ring & Zhang, 2007). A common phenomenon in ESL/EFL classrooms, especially in Asian English ESL classes, is that learners are shy and are afraid of making mistakes in front of other people; therefore, learners tend to be quiet during group discussions (Young, 2003). Research on the use of computer-mediated discussion for language teaching has focused on the questions of participation, language use, and writing improvement. Several studies have found that computer-mediated discussion create a more balanced platform than face-to-face discussion in terms of participation. This might due to the social advantages of online discussion, which allows all the participants in the same group to speak at once without having to wait or be interfered with by other group members. (Kern, 1995; Sullivan & Pratt, 1996; Warschauer, 1996; Warschauer & Healey,1998). Warschauer (1997) found that his second language learners were more likely to participate in computer-mediated than in face-to-face discussion. This finding suggests that computer-mediated communications can reduce anxiety and allow learners who usually participate least in face-to-face discussion to increase their participation in online discussion.

Second, computer-mediated communications provides learners more opportunities to use the target language, which therefore facilitates foreign language learning (Greenfield, 2003; Ortega, 1997). Since at least two language skills (reading

and writing) are involved in the online discussions, learners will spend time practicing both reading and writing, thus improving these skills (Ortega, 1997; Warschauer, 2001). Greenfield (2003) reported that her ESL participants not only enjoyed the use of e-mail exchanges and gained general confidence in English, but also felt that they made significant progress in writing, thinking, and speaking. In addition, Chiang (2007) stated in her study that her EFL participants' English reading comprehension and general English proficiency have been improved through participation in virtual literature circles for a year.

Third, computer-mediated communications are student-centered, which gives learners greater autonomy in thinking and control over their learning experiences. They also tie with individual learner's personal experiences, background, interests, and point of views, which therefore encourage learners' autonomy and foster critical thinking skills and deeper engagement in participation (Li & Cao, 2006). However, few studies have investigated the effectiveness of cultivating critical thinking among second language learners through the use of computer-mediated discussions.

Apart from these benefits, the absence of non-verbal cues could affect communication to be less efficient (Leh, 1999; Staarman, 2003; Warschauer, 1997). Hackman and Walker (1990) found that "encouraging gestures, smiles, and praise" are important cues for enhancing learners' language learning (cited in Leh, 1999). Without these non-verbal cues, discussions will become task-oriented or even businesslike, which affects student communication and learning. Jonassen (2001) observed that it is difficult to exchange information through computer-mediated communications because they tend to be more task-oriented and exchange less information, which hinders participants' social relations and interactions.

In addition to the absence of non-verbal cues, frustration and demotivation can be found in online discussions when there is a high degree of instructor control, when

it is too highly restrictive, and when it fails to reflect learners' own interests (Warschauer, 2001). In other words, beginning language learners might easily give up literature discussions due to frustration while advanced learners might be tempted to "chat" or engage in "superficial net surfing" (Warschauer, 2001). Angeli, Valanides, and Bonk (2003) investigated the quality of asynchronous discussion forums, finding that learners' online discussions consisted mostly of personal experiences and little critical thinking was found in online discussions.

The above review of types of literature circles and their advantages and disadvantages provide a broad understanding of using literature circles in language teaching and learning, especially in ESL/EFL environments. There is no doubt that literature circles can play an important role in assisting learners in learning a target language. Further, its benefits have been shown to be a valuable and effective learning experience to both educators and learners. The major objective of this study is to investigate whether Taiwanese university learners' critical thinking skills will improve after they participate in literature circles (face-to-face and online discussions) for two semesters. In order to better understand the connection between literature circles and critical thinking, the following section will provide a brief review of their potential relationship.

Connection between Critical Thinking and Literature Circles

The goals of literature circles should not be limited merely to developing student literacy skills. At a deeper level, student cognition is actually progressing while they are asking questions and discussing the text with others. Their brains are functioning as they are engaged in literature discussion. Many researchers (Brown, 1997; Davidson, 1996; MacKnight, 2000; Patrick, 1986; Patterson, 1993) have argued that engaging learners in activities that specifically use critical thinking skills is crucial. In

literature circles, learners have the opportunity to exchange thoughts and opinions with their own personal experiences or knowledge, thus promoting effective learning and stressing a higher level of critical thinking skills (Goh, Dexter & Murphy, 2007; Li & Cao, 2006; Moore, J. L. & Marra, R. M., 2005; Yang, 2008; Zhang, Gao, Ring & Zhang, 2007).

Learners' critical thinking can be fostered in literature class when they are given opportunities to practice asking and responding to questions, especially thought-provoking questions. In an early study, Cotton (1982) indicated that "using children's literature and asking questions based on Bloom's Hierarchy can help develop critical thinking" (cited in Patterson, 1993, p.24). The study suggested that Bloom's Taxonomy can be a useful guide for learners in practicing increasing their higher order thinking questions since higher level thinking (level 4-6) requires learners to develop skills in analyzing, synthesizing, and evaluating. Daud and Husin (2004) reported that adopting literary texts in language teaching is effective in developing learners' critical thinking skills. Literary texts and critical thinking are interrelated, and thus should be promoted to educators who long to help learners develop their thinking skills in higher level education.

In addition to literary texts, questions and critical thinking skills are also strongly connected because questions provoke thinking. For example, many questions that relate to the literary texts require learners to compare and contrast characters in the reading, agree or disagree with a situation, and evaluate the value of a belief. Several researchers (Gelder, 2005; Godfrey, 2001; MacKnight, 2000; Supon and Wolf, 1993; Wood, 2001; Yang, 2008) have pointed out that learners should generate their own questions, which shape and guide their thinking. Learners' critical thinking skills cannot be developed unless they are given regular practice in the classroom. Researchers have argued that learners' critical thinking abilities would be strongly

promoted if they were given opportunity to ask challenging questions and share responses to one another in a free and non-threatening environment (Patrick, 1986; Caverly & Peterson, 2005; Li & Cao, 2006; Moore, J. L. & Marra, R. M., 2005; Yang, 2008). In this supportive learning environment, critical thinking can be cultivated as the ideas, thoughts, and emotions that flow and are expressed from the text to the individual reader (Brown, 1997; Daud and Husin, 2004; Patrick, 1986; Wood, 2001). Literature circles not only allow learners to temporarily flee from the traditional passive learning environment, but more importantly, they provide learners the platform to ask questions and express their thoughts without any restraints.

Critical thinking involves conversations between learners, which is a critical part of learning how to make meaning and connections between texts and readers (Brown, 2002; Ketch, 2005; Sai and Hsu, 2007). Literature circles allow learners to have specific roles and discuss books in light of their roles. The conversation in literature circles is valuable. Ketch (2005) stated that this type of conversation enables learners to develop thoughts or ideas of their own. Further, the feedback from other group members helps them form or reconstruct new ideas or support or reject their original idea. This learning process in literature circles increases understanding and molds learners' thinking.

According to Smith and MacGregor (1992), collaborative learning refers to a small group of learners who work together and search for understanding, solutions, or meanings. Literature circles are an example of collaborative learning, offering the advantage of working together in small groups toward a common goal. It is considered an effective tool in foreign language learning (Warschauer, 1997) and in fostering learners' critical thinking (Gokhale, 1995). Gokhale (1995) examined the effectiveness of individual learning versus collaborative learning in enhancing drill-and-practice skills and critical thinking skills. The results showed that learners

who participated in collaborative learning performed significantly better on the critical thinking test than learners who studied individually. This shared learning experience gives learners opportunity to engage in discussion, take responsibility for their own learning, and thus become critical thinkers (Gokhale, 1995; Smith & MacGregor, 1992).

Summary

Critical thinking has been viewed as an important component of education. Many educators have integrated critical thinking into their language classrooms in order to promote learners' intellectual growth and increase their academic achievement. More importantly, it enables learners to develop higher-order thinking skills. Although the idea of integrating of critical thinking into ESL/EFL environments has been criticized, many researchers strongly supported the benefits of teaching critical thinking to ESL/EFL learners.

Literature circles are commonly adopted in first language education. They have made significant impacts in many EFL environments, including Taiwan. As a result, EFL learners have explored the opportunity to discuss to one another's ideas in literature class. This new learning experience allows learners to open their minds, express their thoughts, reflect on their thinking, and listen to one another in a respectful and non-threatening environment. Given the positive effects of implementing literature circles in language classrooms, this study investigates whether critical thinking is fostered through face-to-face and online literature discussions. Once again, the following research questions were examined:

1. Are there any differences between in-class and online discussion groups in terms of their critical thinking? If yes, what are they?
2. Are there any differences in the critical thinking skills of participants before

and after they participate in the literature circles for a school year? If yes, what are they?

3. How do participants perceive the learning experience in both the in-class and online literature discussions?

CHAPTER 3

METHODOLOGY

The purpose of this study was to investigate the effects of integrating literature circles into freshman English classes on cultivating critical thinking skills among adult Taiwanese EFL learners. This study adopted a mixed-method approach, collecting data using both quantitative and qualitative methods. Given the complexity of developing critical thinking skills, a mixed-method approach provided a broader and more reliable way of measurement. In this chapter, the participants and the setting will be first introduced. Then, the instruments of the study will be illustrated. Finally, the instructional procedures, data collection procedures, and data analysis procedures will be explained.

Participants and Setting

The participants in this study were two classes of non-English major freshmen at Tunghai University in central Taiwan. Among them, 31 participants were from College of Sciences (Class 3316, face-to-face discussions) while 26 participants were from the College of Social Sciences (Class 3373, MSN discussions). Based on the results of the Tunghai University English Placement Exam, an internal assessment of English ability, the participants in both classes were placed in high-level Freshman English for Non-English Majors program (FENM) classes.

The main goal of the FENM program, a required course for all the freshmen at Tunghai University, is to help learners to be able to apply their general knowledge to understand and communicate in English. For example, extensive reading is one of the major objectives in the reading component. Learners are provided with simplified

readers such as short stories and simplified English novels, which help learners develop pleasure in reading in a foreign language. In this study, literature circles was integrated into the FENM program because they not only allowed learners to read extensively but also fostered learners' critical thinking abilities. In each class, there were seven literature circles in each semester with totaling 28 hours a year.

Instruments

The study employed both qualitative and quantitative methods. The researcher used a mix-method approach to document and evaluate learners' critical thinking via literature discussions. Instruments in this study included a self-assessment of reading strategy and critical thinking survey, an open-ended questionnaire, and a critical thinking assessment checklist.

Self-assessment of Reading Strategy and Critical Thinking Surveys

In order to acquire information about participants' self beliefs about critical thinking, quantitative data on each subject was obtained through the use of a modified survey—Self-assessment of Reading Strategy and Critical Thinking. The pre- and post-course surveys are the same, consisting of two parts. The first part of the survey (see Appendix A-1) was developed by a learning program of reading assessment in Saskatchewan, Canada (2002). The items in the first part of the survey are mainly about participants' own reading strategies and behaviors. The purpose was to learn what participants did "before," "during," and "after" reading. A 4-point Likert scale was adopted for each item, ranging from 1 (never), 2 (seldom), 3 (sometimes), and 4 (most of the time). Sample item from each dimension includes:

- Before reading, I think about the cover, the title, and what I know about the topic.

- During reading, I stop and retell to see what I remember. (I reread if necessary).
- After reading, I summarize important ideas.

The second part of the survey (see Appendix A-2) is a critical thinking self-assessment based on the cognitive domain of Bloom's taxonomy (Lander, 2007), which is a way of organizing different parts of higher level thinking. It is a self-assessment used to learn where participants are in developing their thinking skills in reading. The first three levels (Level 1-3) are more fundamental, while the last three (Level 4-6) are types of higher order thinking. A 4-point Likert scale was also adopted, ranging from 1 (never), 2 (seldom), 3 (sometimes), and 4 (most of the time). Sample item from each aspect includes:

- I can list the names of people, places, and things. (level 1)
- I can summarize the major points that I read into my own words. (level 2)
- I can relate my past learning or knowledge to the story. (level 3)
- I can find similarities and differences between characters. (level 4)
- I can solve the problem in the story. (level 5)
- I can evaluate the value of the story. (level 6)

In order to assure the reliability of the survey on Self Assessment of Critical Thinking, the surveys were pilot-tested and were distributed to 61 English non-major freshmen who were placed into higher level classes according to the English Placement Exam at Tunghai University. Table 3.1 indicated that the overall Internal-Consistency Reliability Coefficients of the survey was 0.894. The internal-consistency reliability coefficients of part I and part II were 0.817 and 0.849 respectively, showing that this survey obtained a moderately high

internal-consistency reliability coefficient.

Table 3.1 Internal-Consistency Reliability Coefficients of the survey on Self Assessment of Critical Thinking (Pilot)

	Cronbach's Alpha
Self Assessment on Critical Thinking Part I (14 items)	.817
Self Assessment on Critical Thinking Part II (18 items)	.849
Overall (32 items)	.894

N=61

Critical Thinking Assessment Checklist

The dialogues between participants in each literature circle were audio or video-recorded (face-to-face discussions) and saved in a Microsoft Word file (MSN discussions) each time. Then, the dialogues were transcribed and used as both quantitative and qualitative data. The Critical Thinking Assessment Checklist (see Appendix B) is based on the cognitive domain of Bloom's Taxonomy, with six levels from 1 to 6 (Bloom, 1984). The checklist focused on participants' questioning only. Participants' questions were collected when they were doing the roles of question writer and connector during the discussions. When the participants were doing other roles, there were no questions asked. The researcher examined the questions individually in each literature circle and classified them into differing levels of Bloom's Taxonomy. The total number of each level was counted in each literature circle.

Open-ended Questionnaire

The open-ended questionnaire (see Appendix C-1 and C-2) gives an overview of participants' feelings, opinions, and comments about participating in literature circles. These qualitative data on each participant was obtained to provide a broader picture of the way participants perceived this learning method. The questionnaire was distributed to the participants at the end of the first and second semesters. There were five questions in total:

1. Do you enjoy participating in literature circles? Why or why not?

2a. How do literature circles help you develop your English ability? Please explain your answer.

2b. How do literature circles help you develop your critical thinking skills? Please explain your answer.

3. Do you like discussing with your classmates face-to-face? Why or why now? (3316, face-to-face discussion groups)

3. Do you like using MSN to discuss in your literature circles? Why or why now? (3373, MSN discussion groups)

4. In literature circles, which role (e.g. summarizer, connector, illustrator…) do you think is *the most* helpful? Which role is *the least* helpful? Why?

5. What difficulties or challenges have you experienced when participating in literature circles?

Instructional Procedures

At the beginning of the fall semester of 2007, the idea of literature circles was introduced to the participants. In order to help participants become familiar with the purpose and process of literature circles, not only were the seven roles of the literature circles demonstrated, but the relationship between critical thinking,

extensive reading, and literature circle discussions were emphasized as well. To discover the differences between computer-mediated and in-class, face-to-face literature discussions, one class carried out their literature circle discussions in the computer lab where learners had access to MSN whereas the other class had their literature circle discussions in the regular classroom.

Participants in both classes could choose their own partners for their literature circles. A total of 7 groups of four to five learners were established in each class. As for the choice of reading materials, the teacher in each class assigned three novels for each semester. For the fall semester of 2007, Black Beauty, Dr. Jekyll and Mr. Hyde, and Chronicles of Narnia: The Lion, the Witch and the Wardrobe were chosen. Because of Winn-Dixie, Holes, and Jane Eyre were selected for the spring semester of 2008. Before they read a new book, each participant in each group had to decide on the roles used in the literature circles, choosing from among summarizer, question writer, connector, vocabulary finder, and illustrator. Some of the roles were changed in the second semester due to student feedback on these literature circle roles. The roles for the second semester included summarizer, question writer, connector, character captain, and passage master. After deciding on the roles, each group then submitted a "role" sheet, which indicated who was doing what role. After that, the participants read the assigned chapters at home, and did the homework according to their roles for the coming literature circle. At the beginning of the second semester (March 12th and 14th, 2008), the explicit instruction of Bloom's taxonomy (see Appendix D), 6 levels of thinking, was taught to both classes in order to help learners better understand and familiar themselves with what higher order thinking questions are. In addition, suggestions and comments were given on their homework each time. During the literature circles discussions, participants took turns to share the work that they had prepared. For example, the summarizer summarized the chapters; the

connector asked questions that connected the text to their lives or experiences; the vocabulary finder taught a few interesting or difficult words for the group. The participants were encouraged to share, discuss, and make comments freely as long as they were focusing on the topic and were using the target language. The researcher was a participant as well as an observer in both classes. I assigned myself to one of the small discussion groups as an additional member and participate in discussions, so that I could guide them and point them to a higher level of discussions.

Data Collection Procedures

Data was collected over a ten-month period by the following means: the Self-assessment of Reading Strategy and Critical Thinking Survey, the Critical Thinking Assessment Checklist, and the open-ended Questionnaire.

First, the Survey and the Open-ended Questionnaire were distributed to the participants twice, at the end of the first semester (Fall 2007) and at the end of the second semester (Spring 2008). The survey provides important information about participants' reading strategies and behaviors, and also acts as the participant self-assessment of their own critical thinking skills. The Open-ended Questionnaire helps create an in-depth understanding of literature circles initial impact on the participants and how they affect their critical thinking. In addition, the dialogues in the literature circles in both classes were collected as part of the data. The data in computer-mediated class was saved in a Microsoft office Word file while the data in the in-class, face-to-face literature circle discussions was audio or video-recorded and then transcribed for data analysis.

Data Analysis Procedures

Quantitative Data Analysis

To answer the first research question, the overall scores in part I of the survey were individually calculated. As for part II of the survey, the overall scores were calculated, along with the average scores for each level. The survey was distributed twice, and the scores were compared by using Paired-Sample T-test at the end of the study.

In addition, quantitative data was obtained through the use of the Critical Thinking Assessment Checklist, targeting the second research question. The quantitative data was analyzed using the theory of Bloom's Taxonomy which assesses critical thinking. All the participants in both classes were examined. In the assessment checklist, participants' questions were carefully studied and placed in the correct level of the checklist. Then, the overall frequency was individually calculated. The dialogues in both classes were also analyzed from a qualitative standpoint, which could indicate any improvement after participating about a year-long literature discussion.

Qualitative Data Analysis

To answer the third research question, an open-ended questionnaire was used. These qualitative data was compared at the end of the study in order to determine participants' attitudes and opinions toward participating in literature circles for two semesters. First, the participants' attitudes toward literature circles were compared in terms of response frequency. Second, based on the results of response frequency counts, the participants' attitudes toward each mode of discussion were compared (face-to-face discussion for the in-class group and MSN for the online group). Third, participants' opinions and comments toward language learning and critical thinking

were compared. Finally, the difficulties that participants encountered were mentioned.

The participants' responses toward the five questions in the survey questionnaire appeared several sets of themes. After a year of participating in literature circles, participants mentioned not only the advantages and disadvantages of literature circles, but also how literature circles influenced their English ability and critical thinking. Further, for the online group, participants' comments on using MSN for literature discussion were pointed out. As for the in-class group, participants were asked whether they enjoyed the traditional way of face-to-face literature discussion.

CHAPTER 4

RESULTS AND DISCUSSIONS

This chapter consists of two parts. First, the results of the collected data from the present study will be presented, including participants' pre- and post- scores on the critical thinking assessment survey questionnaire, questions formed by the participants, and their responses to the open-ended questionnaire. Second, the findings of the study will be discussed.

Effects of Literature Circles on Participants' Critical Thinking in the Face-to-face and Online Group

In this study, the participants' pre- and post- scores on the self-assessment of critical thinking survey questionnaire were collected and analyzed in order to answer Research Question 1: Are there any differences between in-class and online discussion groups in terms of their critical thinking? If yes, what are they? The total of 32 items was included in the questionnaire, containing 14 items in Part I and 18 items in Part II. The self-assessment data was categorized by the six levels of Bloom's taxonomy. Within group findings will first be illustrated, followed by between groups findings.

In order to know whether participants' critical thinking in the in-class group had any differences after the one-year program, the mean scores of the pre-, and post-surveys were then compared.

Table 4.1 displays the mean scores and standard deviation of the in-class group on the pre- and post- critical thinking self-assessment survey questionnaire. As the results of Part II of the survey clearly indicate that the mean score for each item had

been increased, meaning the participants made progress in all the items from level one to six. Among the 18 items in the survey, item 5 had the highest mean difference. This substantial difference suggests that participants made a considerable progress in making connections between the text and their personal life experiences. Besides item 5, items 4 and 17 also had high mean differences, indicating that participants were more able to provide explanations of the people and events happened in the story. The difference in item 17 suggests that the participants made progress in judging the story in terms of the characters and events.

Table 4.1: Comparison of Pre- and Post- Self-assessment on Critical Thinking of the In-class Group

	Pre-survey		**Post-survey**	
	Mean	**SD**	**Mean**	**SD**
Level 1				
1. I can remember and recognize the things that I have read. 我能記得和認出故事中的人物和事件。	3.29	0.64	3.32	0.54
2. I can list the names of people, places, and things. 我能列舉故事中的人物，地點和其他事件的名稱。	3.12	0.76	3.16	0.58
Level 2				
3. I can summarize the major points that I read into my own words. 我能用自己的文字把故事的大綱總結起來。	3.00	0.68	3.19	0.65
4. I can explain why (e.g. why did the character act in this way? Or why did something happen?) 我能解釋“為什麼,”如“為什麼故事的主角會有如此的行為?”或“為什麼會發生這種事情?	2.74	0.63	3.12	0.71
Level 3				
5. I can make connections from the story to my own life. 我能把自己的生活與故事的人物或情節做連結。	2.41	0.71	2.83	0.68
6. I can relate my past learning or knowledge to the story. 我能把過去的經驗和知識與故事作聯繫。	2.64	0.60	2.93	0.51

Level 4				
7. I can discover the important points in the story. 我能找出故事中的重點。	2.96	0.54	3.16	0.52
8. I can analyze the important characters and events in the story. 我能分析故事中的重要角色和事件。	3.03	0.79	3.22	0.71
9. I can explain how important points fit together. 我能解釋故事中的重點，相互之間有什麼關聯。	3.03	0.70	3.06	0.62
10. I can find similarities and differences between characters. 我能找出角色與角色之間的相同與不同的地方。	3.00	0.77	3.12	0.61
11. I can compare the story with other stories I read before. 我能用別的故事與這故事作出比較。	2.38	0.80	2.58	0.84
Level 5				
12. I can organize main points of the story in a logical way. 我能合理地組織故事中的重點。	2.80	0.65	3.00	0.63
13. I can imagine myself in the story or time that I am reading. 我能在閱讀中把自己想像在故事的情節中。	2.90	0.97	3.09	0.78
14. I can solve the problem in the story. 我能解決故事中的問題。	2.64	0.66	2.83	0.63
Level 6				
15. I can decide which characters are good and bad. 我能判斷故事中的那一個角色是好和壞。	2.90	0.78	3.19	0.54
16. I can evaluate the value of the story. 我能評估故事的價值或重要性。	2.67	0.65	2.83	0.77
17. I can judge the story in terms of the characters, events, etc. 我能評論故事中的人物或事件。	2.77	0.66	3.12	0.61
18. I can easily predict the next chapter or the ending of the story. 我能輕易地預測下一章(當完成閱讀前一章) 或故事的結局。	2.32	0.74	2.54	0.67

Table 4.2 provides a summary of the mean scores and standard deviation of the overall and the three sections of Part I of the pre- and post- surveys in the in-class group. The table clearly shows that the overall score of Part I in the in-class group was increased, including the three sections in Part I of the survey. In other words, participants made progress in their reading styles before, during, and after reading.

Table 4.2 Comparison of the In-class Group on their Critical Thinking Self-assessment Before and After the Study

	Pre-survey		Post-survey	
	Mean	SD	Mean	SD
Part I (Overall)	39.58	3.99	42.00	4.48
Part I (Before reading)	8.93	1.73	9.29	1.46
Part I (While reading)	16.80	2.21	18.22	2.36
Part I (After reading)	13.83	1.77	14.48	2.15

T-test was conducted in order to determine whether there was a significant difference between the pre- and post-survey in the in-class group. The overall results of both Parts I and II of the survey were significant, indicating that the participants in the in-class group made progress in their critical thinking (Table 4.3). In terms of the thinking skills from levels 1 to 3 in Part II of the survey, improvement was found in the in-class group. In addition, the higher critical thinking skills (level 4 to 6) in Part II of the survey were also considered to be statistically significant. That is to say, the overall results of both Part I and Part II of the survey in the in-class group showed a positive progress in the participants' thinking skills after a year of study.

Table 4.3 Results of Paired Samples T-Test of the In-class Group in Pre- and Post-Surveys

	Mean	Std Deviation	Std.Error Mean	t	df	Sig. (2-tailed)
Part I (overall)	2.41	3.67	0.66	-3.66	30	0.00*
Part II (overall)	3.00	6.51	1.17	-2.56	30	0.00*
Part II (Level 1-3)	1.35	3.00	0.53	-2.50	30	0.01*
Part II (Level 4-6)	1.64	5.01	0.89	-1.82	30	0.00*

*P<.05

Table 4.4 provides the mean scores and standard deviation of the online group on Part II of the pre- and post-survey. The mean scores of all the items in Part II of the survey questionnaire had been increased, meaning the participants had made improvement in their critical thinking after a year of study. Among the 18 items in the survey, item 18 had the greatest mean difference, suggesting growth in participants' ability in making predictions for what comes next in the story. Besides item 18, items 9, 16, and 17 also had high mean differences. The differences suggest that participants were more able to explain how important points in the story fit together. Further, the participants made progress in evaluating the value of the story and judging the story in terms of the characters and events.

When Table 4.1 was compared with Table 4.4, an obvious finding was the range of improvement in the mean scores between the two groups. Comparing the in-class group, the online group had a larger growth in each single item. This greater mean difference is especially obvious in the higher-order thinking-related items (level 4-6).

Table 4.4: Comparison of Pre- and Post- Self-assessment on Critical Thinking of the Online Group

	Pre-survey		**Post-survey**	
	Mean	**SD**	**Mean**	**SD**
Level 1				
1. I can remember and recognize the things that I have read. 我能記得和認出故事中的人物和事件。	2.46	0.81	3.26	0.60
2. I can list the names of people, places, and things. 我能列舉故事中的人物，地點和其他事件的名稱。	2.61	0.75	3.07	0.68
Level 2				
3. I can summarize the major points that I read into my own words. 我能用自己的文字把故事的大綱總結起來。	3.00	0.48	3.26	0.60

4. I can explain why (e.g. why did the character act in this way? Or why did something happen?) 我能解釋“為什麼,”如“為什麼故事的主角會有如此的行為?”或“為什麼會發生這種事情?	2.69	0.54	3.19	0.56
Level 3				
5. I can make connections from the story to my own life. 我能把自己的生活與故事的人物或情節做連結。	2.57	0.57	3.11	0.65
6. I can relate my past learning or knowledge to the story. 我能把過去的經驗和知識與故事作聯繫。	2.76	0.86	3.07	0.74
Level 4				
7. I can discover the important points in the story. 我能找出故事中的重點。	2.73	0.66	3.19	0.69
8. I can analyze the important characters and events in the story. 我能分析故事中的重要角色和事件。	2.46	0.64	3.38	0.49
9. I can explain how important points fit together. 我能解釋故事中的重點，相互之間有什麼關聯。	2.30	0.67	3.38	0.63
10. I can find similarities and differences between characters. 我能找出角色與角色之間的相同與不同的地方。	2.80	0.80	3.53	0.58
11. I can compare the story with other stories I read before. 我能用別的故事與這故事作出比較。	2.23	0.71	3.00	0.69
Level 5				
12. I can organize main points of the story in a logical way. 我能合理地組織故事中的重點。	2.65	0.56	3.07	0.56
13. I can imagine myself in the story or time that I am reading. 我能在閱讀中把自己想像在故事的情節中。	2.76	1.10	3.50	0.64
14. I can solve the problem in the story. 我能解決故事中的問題。	2.30	0.67	3.26	0.53
Level 6				
15. I can decide which characters are good and bad. 我能判斷故事中的那一個角色是好和壞。	3.07	0.68	3.65	0.48
16. I can evaluate the value of the story. 我能評估故事的價值或重要性。	2.61	0.80	3.69	0.47
17. I can judge the story in terms of the characters, events, etc. 我能評論故事中的人物或事件。	2.65	0.79	3.76	0.42
18. I can easily predict the next chapter or the ending of the story. 我能輕易地預測下一章(當完成閱讀前一章)或故事的結局。	2.46	0.76	3.69	0.47

Table 4.5 summarizes the mean scores and standard deviation of the overall and scores across three sections of Part I in the pre- and post- surveys. It is obvious that the overall score in Part I of participants in the online group was increased. In addition, the participants made positive changes in their reading styles or reading habits before, during, and after reading.

Table 4.5 Comparison of the Online Group's Critical Thinking Self-assessment Before and After the Study

	Pre-survey		Post-survey	
	Mean	SD	Mean	SD
Part I (Overall)	35.92	3.90	44.26	3.32
Part I (Before reading)	7.30	1.51	9.11	1.60
Part I (While reading)	15.53	2.21	19.23	1.68
Part I (After reading)	13.07	2.03	15.92	1.67

Table 4.6 demonstrates that participants' critical thinking in the self-assessment survey was significantly improved in the online group after a year of study. The overall scores of both Part I and Part II of the survey questionnaire had a significant growth in terms of their attitude towards reading and critical thinking. In addition, participants in the online group had positive progress in all levels of critical thinking.

Table 4.6 Results of Paired Samples T-Test of the Online Group in Pre- and Post-Surveys

	Mean	Std. Deviation	Std. Error Mean	t	df	Sig. (2-tailed)
Part I (overall)	8.34	3.54	0.69	12.01	25	0.00*
Part II (overall)	12.96	5.12	1.00	12.89	25	0.00*
Part II (Level 1-3)	2.88	2.58	0.50	5.69	25	0.00*

Part II (Level 4-6)	10.07	4.76	0.93	10.78	25	0.00*

*P<.05

In addition to exploring the within group changes in the Self Assessment of Critical Thinking, this study also investigates between group differences. Table 4.7 provides the means and standard deviations of the in-class and online groups' responses of Part I of the pre- and post-survey. First, the online group had a larger improvement than the in-class group in terms of the overall score in Part I of the survey. As for the three sections of Part I, it is obvious that the online group indicated greater progress than the in-class group in participants' reading styles before, during, and after reading. Regarding to Part II of the survey shown in Table 4.8, the online group significantly outperformed the in-class group, especially in higher level thinking (level 4-6).

Table 4.7 Comparisons of the In-class and Online Groups' Performance on Part I of the Self-assessment of Critical Thinking in the Pre- and Post- Surveys

		Pre-survey		Post-survey	
		Mean	SD	Mean	SD
Part I (Overall)	in-class	39.58	3.99	42.00	4.48
	online	35.92	3.90	44.26	3.32
Part I (Before reading)	in-class	8.93	1.73	9.29	1.46
	online	7.30	1.51	9.11	1.60
Part I (While reading)	in-class	16.80	2.21	18.22	2.36
	online	15.53	2.21	19.23	1.68
Part I (After reading)	in-class	13.83	1.77	14.48	2.15
	online	13.07	2.03	15.92	1.67

Table 4.8 Comparisons of the In-class and Online Groups' Performance on Part II of the Self-assessment of Critical Thinking in the Pre- and Post- Surveys

		Pre-survey		Post-survey	
		Mean	SD	Mean	SD
Part II (Overall)	in-class	50.67	5.36	54.38	5.28
	online	47.19	4.63	60.15	4.73
Part II (Level 1-3)	in-class	17.32	2.41	18.58	2.37
	online	16.11	1.70	19.00	2.09
Part II (Level 4-6)	in-class	33.45	3.93	35.80	3.87
	online	31.07	4.74	41.15	3.29

To determine whether there was any significant difference in participant's critical thinking between the two groups after taking part in literature circles for a year, an Independent Samples t-test was then conducted. The results were shown in Table 4.9, indicating significant difference was found both in Part I and Part II of the survey between the in-class and online groups.

Table 4.9 Independent Samples T- Test of the In-class and Online Groups Overall Performances in the Self-assessment Critical Thinking Survey

	t	df	Sig. (2-tailed)	Mean Difference	Std.Error Difference
In-class vs. online (Part I)	2.13	55	0.03	2.26	1.06
In-class vs. online (Part II)	4.30	55	0.00	5.76	1.34

In sum, on Research Question 1, the results demonstrated that the overall scores of both Part I and Part II of the survey questionnaire in both groups were increased. In other words, participants in both groups improved in their reading styles and critical thinking. Specifically after participating in literature circles for two semesters, significant difference was found in the higher level (4 to 6) thinking in Part II of the survey in both groups. As for the between group difference, significant difference

was found in the two groups' critical thinking self assessment.

Students' Performances in Critical Thinking

In addition to the critical thinking self assessment, this study also analyzed participants in both groups to see whether their higher-order thinking skills had improved after a year of participating in literature circles. The Critical Thinking Assessment Checklist (see Appendix B) is based on the cognitive domain of Bloom's Taxonomy, which is categorized from level 1 to 6. Questions were collected from each participant in order to answer Research Question 2: Are there any differences in the critical thinking skills of participants before and after they participate in the literature circles for a school year? If yes, what are they? Figure 4.1 displays the total number of questions that were raised for each level in the online group after the first and second semesters. By the end of the study, the number of questions from level 1 to 3 was decreased, as Fig.4.1 shows. On the other hand, the number of questions from level 4 to 6, considered critical thinking, was increased at the end of the second semester. Within the three higher levels, level 6 had the greatest improvement of all, having the difference of 147. Figure 4.2 shows that similar results were found in the in-class group. The highest improvement was also in level 6, which had a 97 increase.

Figure 4.1: Total Number of Questions Raised in the Online Group

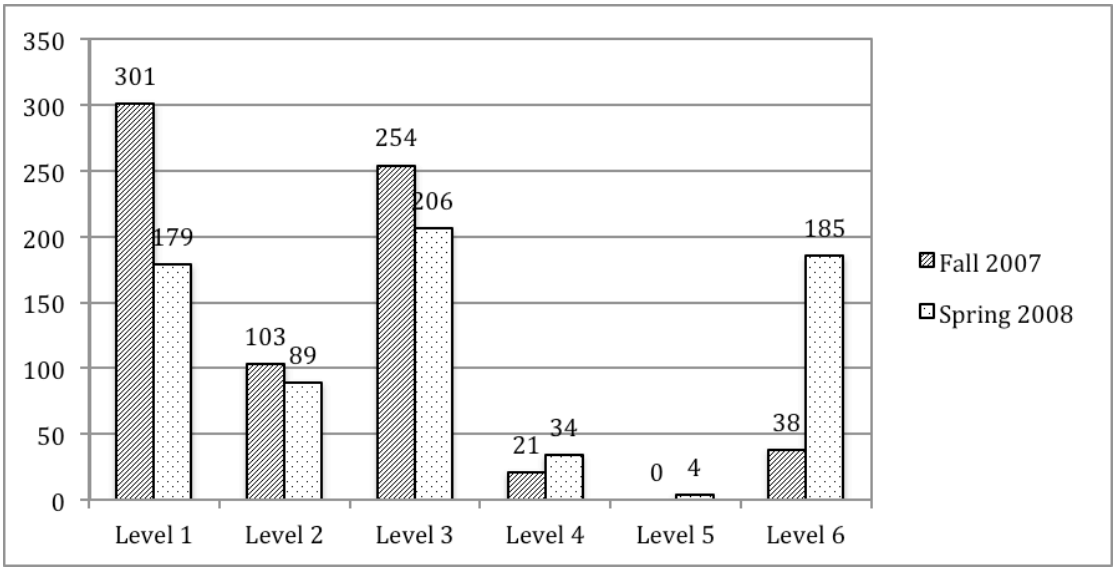
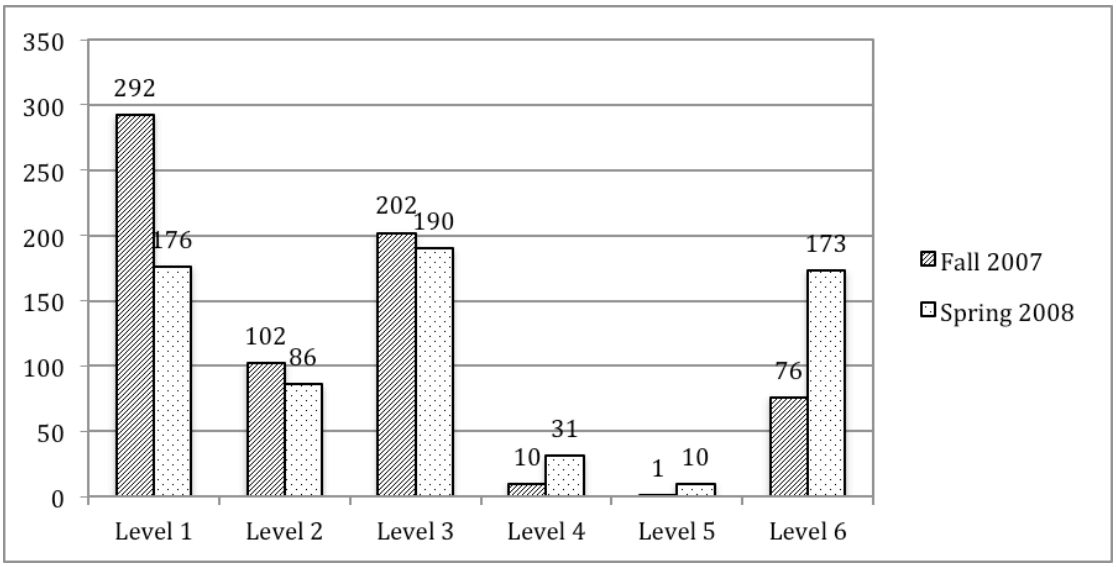


Figure 4.2: Total Number of Questions Raised in the In-class Group

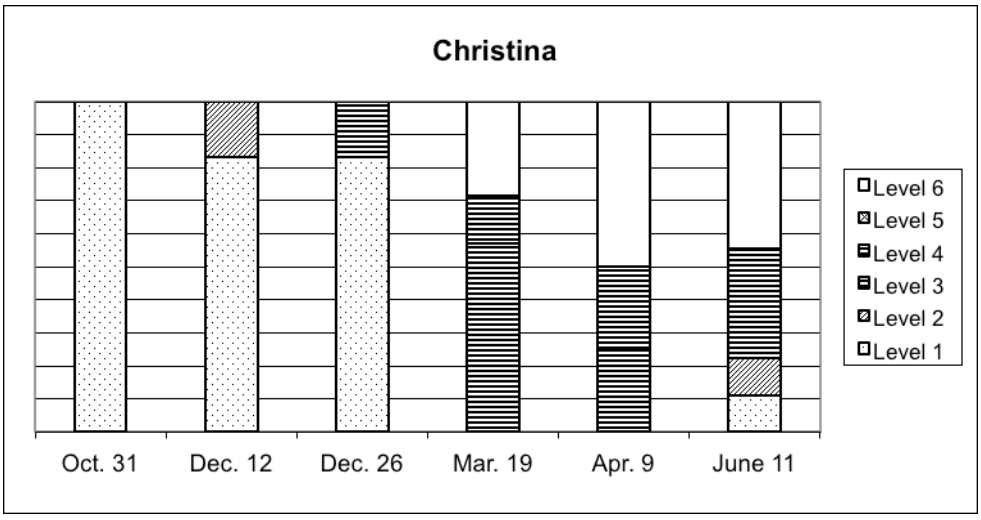


During the 10-month of taking part in literature circles, participants in both groups were practicing raising higher order questions. At the beginning of the first semester (Fall 2007), most of them were not familiar with what higher level questions were. After 10 months, many of them were not only able to recognize higher level questions, but also successfully form those questions.

The questions raised by each participant were categorized into the corresponding

level of the critical thinking assessment checklist. Then the questions for each level were counted at the end of the study in order to find out whether participants' ability in crafting higher-order thinking questions has enhanced. Based on the analysis of the critical thinking assessment checklist, about half of the students in both groups, the online and in-class literature circles, showed improvement in their critical thinking. 13 out of 26 participants in the online group and 17 out of 31 participants in the in-class group had significant growth in their critical thinking skills. The following charts provide samples of participants' frequency of raising higher-order thinking questions in each group over two semesters of participating in literature circles. Sample questions were provided under each participant with the correct level stated. For the online group, Christina, Fanny, and Jodie raised only lower level questions at the beginning of the study. In the second half of the study, they gradually were able to form higher-order thinking questions. For the in-class group, Tim, Dabby, and Wilson successfully raisied more critical thinking questions during the second half of the study, indicating their critical thinking skills were enhanced.

Sample Questions of Three Participants in the Online Group



Oct. 31: What does Dr. Jekyll look like? (level 1)

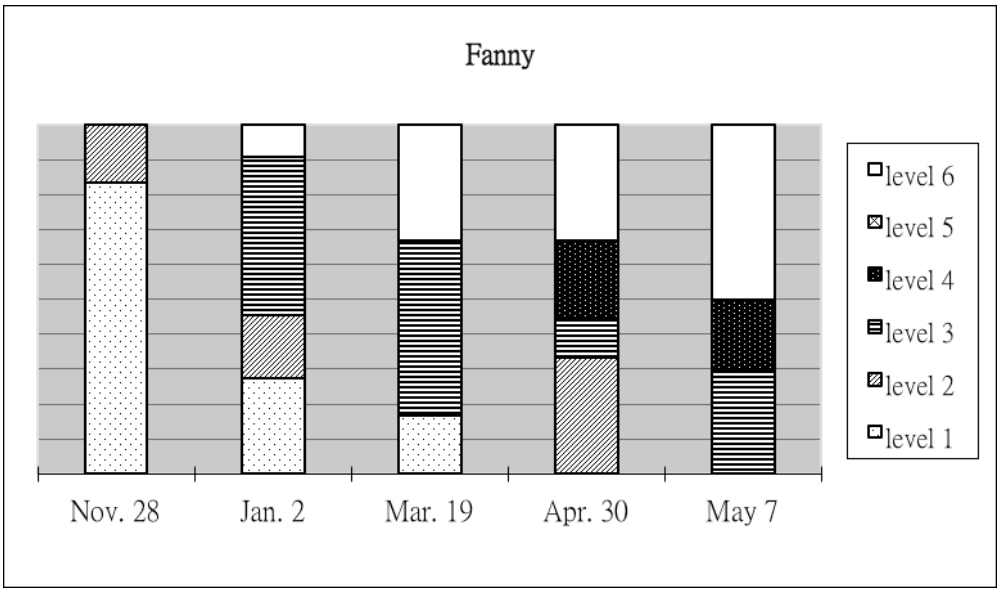
What happened on January 8th? (level 1)

Mar. 19: In your opinion, what's the function of music? How can music help people? (level 6)

Do you agree that pets are very important in today's world? Why or why not? (level 6)

Apr. 9: What is your opinion of sincere friendship? Please explain your answer. (level 6)

June 11: Do you agree that age is not a problem in a marriage? (level 6)



Nov.28: How many people lived with the professor? (level 1)

What did Lucy do when she found the wardrobe? (level 1)

Mar.19: If you were Otis, how would you feel when Opal introduced you to other people? (level 3)

What is your opinion of "white lie"? (level 6)

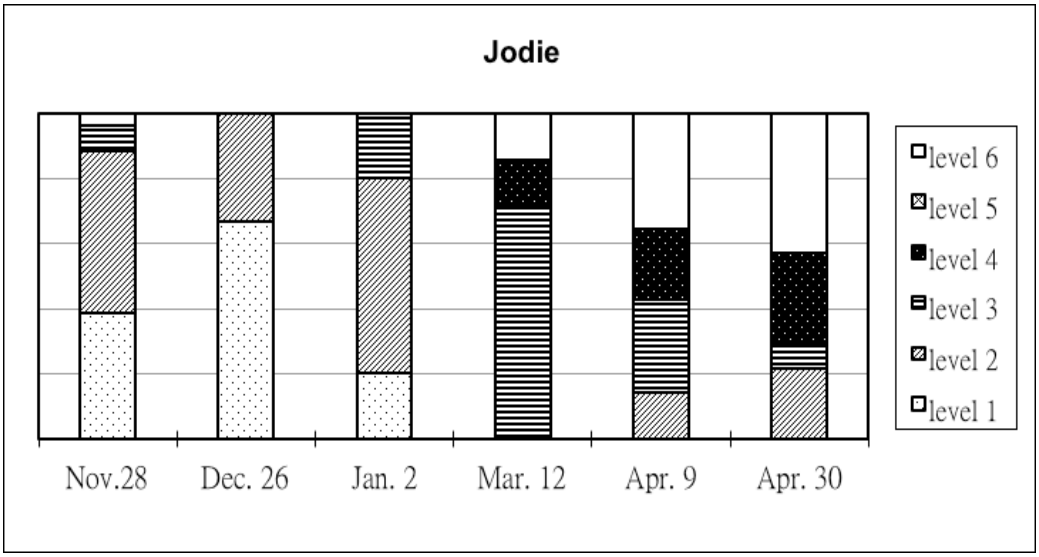
Do you agree with Gloria's words, "you can only love what you got while you got it." (level 6)

Apr.30: Compare the differences between Stanley and Zero's childhood. (level 4)

May 7: In your opinion, do you agree that parents can treat all their children equally even the child is not their own? Why or why not? (level 6)

What is your opinion about the saying, "we can not judge the person by their clothes"? (level 6)

Do you agree with physical punishment? Why or why not? (level 6)



Nov.28: Do you like hide-and-seek? (level 1)

Have you ever had a secret when you were young like Lucy did? (level 3)

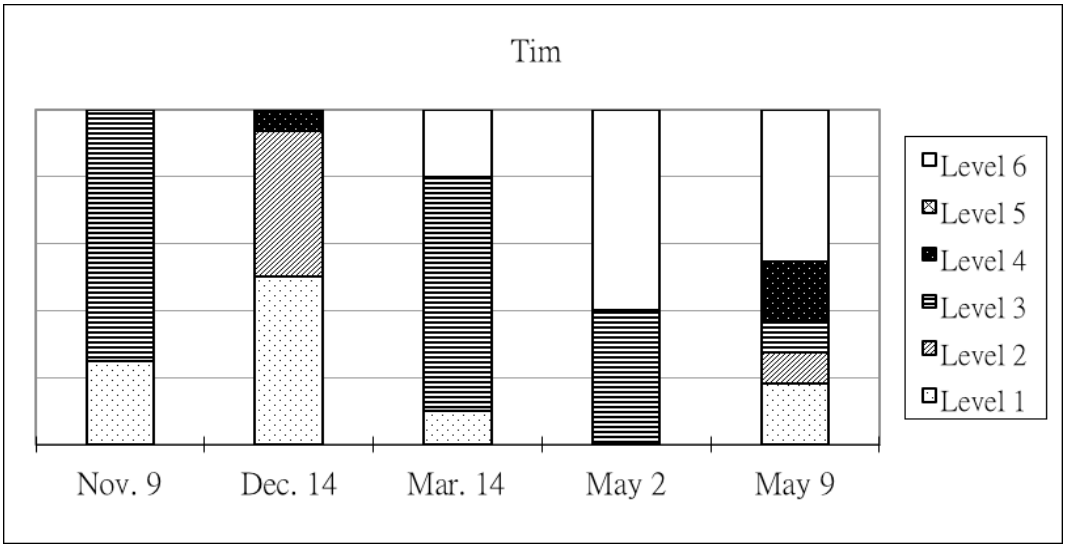
Mar.12: If you were Opal, would you still make friends with Otis? Why or why not? (level 3)

Do you agree that the world has enough ugly things? Why or why not? Please give examples. (level 6)

Apr.30: Why did the author put the story about Sam selling onions? What is the meaning of it? (level 4)

Was the Warden good or bad? Why? What about her childhood? (level 4)

Sample Questions of Three Participants in the In-class Group



Nov.9: Do you have any habits that impress your friends? (level 1)

Has someone confessed something to you before? (level 3)

Mar.14: If your country was in a war, would you volunteer to fight for your country in the same way Littmus did? Why or why not? (level 3)

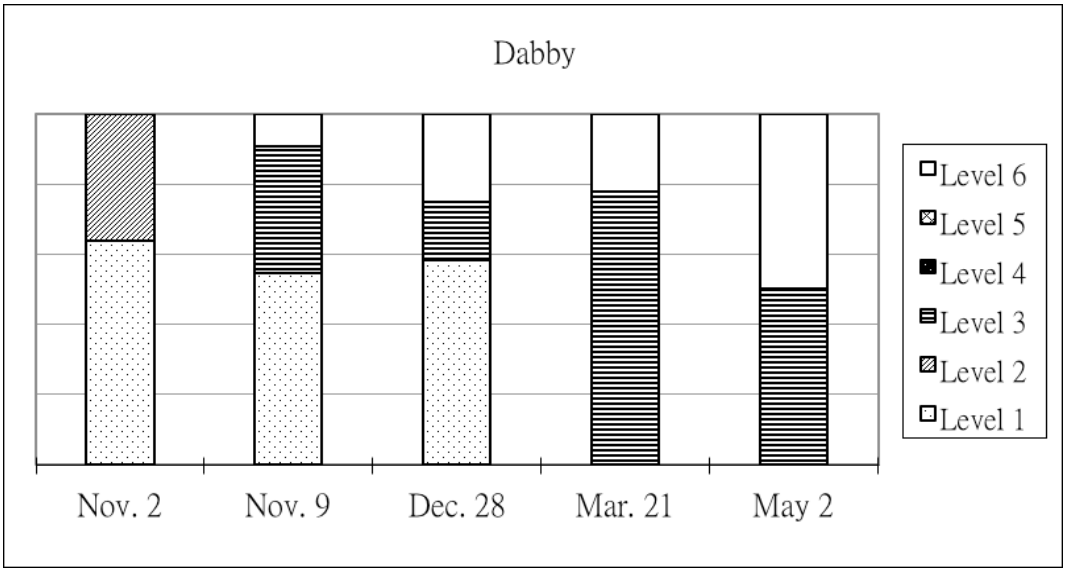
In your opinion, what is the most serious problem in our society? How can we improve our society? (level 6)

May 2: In your opinion, what's the meaning of love? (level 6)

Do you think that doing what you want in front of people is always right? (level 6)

May 9: What does the sentence "Life is too short to continue hating anyone for a long time" mean? Do you agree with this sentence? (level 4 & 6)

Do you agree that all parents understand their children very well? Why or why not? (level 6)



Nov.2: Who planned to murder Dr. Jekyll? (level 1)

Why was the lawyer sad? (level 2)

Nov.9: Do you have very closed friends? (level 1)

Have you ever felt strange about yourself? (level 3)

Mar.21: In your opinion, do you think positive attitude is important to our lives? Why or why not? (level 6)

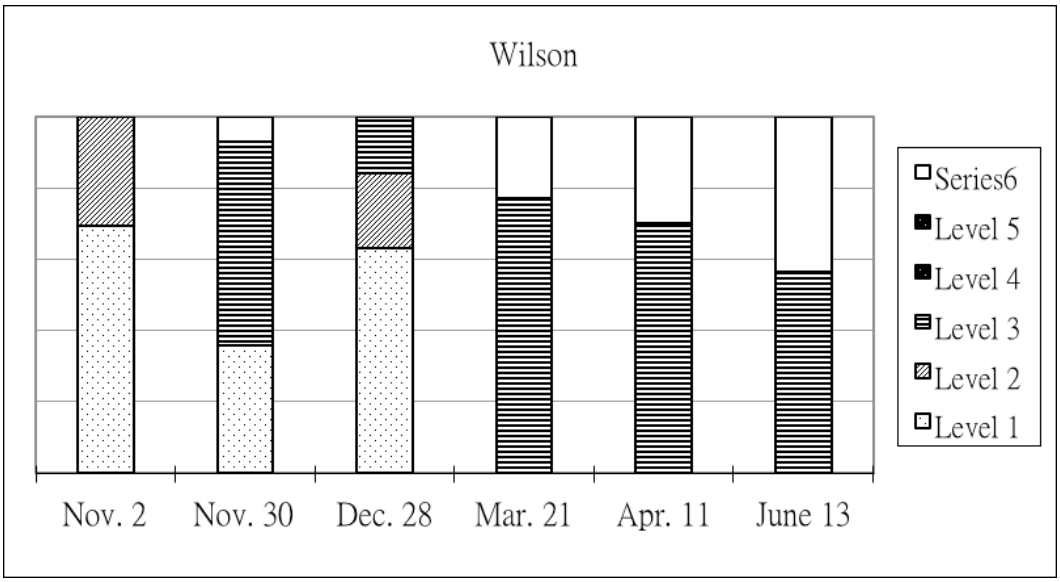
May 2: Do you agree that most of our lives are filled with frustration? Why or why not? (level 6)

In the real society, many young mothers leave their babies on the sidewalk or in the trash can. If you could help them, what would you do to change their minds?

(level 6)

There is a hole in everybody's heart because no one is perfect. What do you

think makes the hole in our heart? Is it frustration or an inferiority complex? How do you fix the hole in your heart? (level 6)



Nov. 2: Where did Mr. Utterson and Enfield meet Hyde? (level 1)
Nov. 30: Have you ever had an adventure by yourself? How was it? (level 3)
Mar. 21: In your opinion, what is pure happiness? (level 6)
Apr. 11: The novel talked about "God's thumb." In your opinion, do you think we can get comfort or shelter by "God's thumb"? Why or why not? (level 6)
June 13: In Morton, school is only for boys, girls have no right to go to school to learn. Do you agree with that? Is it equal? (level 6)

Open-Ended Questionnaire

The open-ended questionnaire consists of five questions in total, giving an overview of participants' feelings, opinions, and comments about participating in literature circles. Collected data were coded and analyzed in order to answer Research Question 3: How do participants perceive the learning experience in both the in-class and online literature discussions?

General Perceptions of Literature Circles

To find out participants' general perceptions of literature circles, an open-ended questionnaire was used. Tables 4.10 and 4.11 suggest that the majority of the

participants in both classes (77% for the in-class & 73% for the online) enjoyed taking part in literature circles over the year. The number of participants who first disliked literature circles had been decreased after participants took part in literature circles for another semester. Participants provided different responses, but those who liked the idea of literature circles in both classes had similar responses. Many of them pointed out that small group discussions were enjoyable and practical. One of the reasons was that sharing in a small group in a stress-free environment caused their anxiety level to be reduced, and yet increased their self-confidence. However, a few participants pointed out that the design of the small group discussion did not support genuine interactions, which therefore discouraged them from participation.

Table 4.10 Online Participants' Attitude toward Literature Circles in Pre- and Post-Surveys

Online Group	**Likes**	**Neutral**	**Dislikes**
Fall 2007 (Pre-Survey)	65%	23%	12%
Spring 2008 (Post-Survey)	73%	23%	4%

Table 4.11 In-class Participants' Attitude toward Literature Circles in Pre- and Post-Surveys

In-class Face-to-face	**Likes**	**Neutral**	**Dislikes**
Fall 2007 (Pre-Survey)	68%	19%	13%
Spring 2008 (Post-Survey)	77%	16%	7%

Advantages of Literature Circles

The Improvement of English Ability. One of the advantages that many participants mentioned was the development of their English ability. Most participants in both groups believed that literature circles are a good learning method in developing their English ability since literature circles provided them an English-speaking environment, facilitating practice in using the target language. One participant said, "Speaking English was challenging in literature circles, but practical in learning a foreign language." A number of other participants mentioned that their speaking ability was enhanced, as one participant indicated, "I tried to share my thoughts and personal experiences every time in my discussion circle, I found that my speaking ability got improved. I can now speak longer sentences with fewer grammatical mistakes." In addition to speaking ability, other language skills including reading, writing, and listening skills were also developed. Some participants thought that they began to read faster and were able to grasp the main idea of each chapter, which helped them develop their reading and writing skills, especially when they were using their own words to write the chapter summary. Several participants indicated, "At first I read very slowly, but after two semesters of reading, I can read much faster now." Furthermore, many participants pointed out that their vocabulary bank had been developed through looking up the new words in the dictionary and explaining them to others during literature circles. A participant stated, "Over these two semesters, I have learned many new words. Although I couldn't check out all the unknown words, I tried to look up words that often appeared in the novel."

The Cultivation of Critical Thinking. In addition to the improvement of the participants' English ability, many participants thought that their thinking skills were

fostered due to the practice of forming questions, especially connecting questions. Several participants mentioned that the role of connector was very beneficial because it allowed them to think critically about the connection between the novel and their own personal lives. The process of thinking helped them to increase their self-awareness of their own thinking and also aided their ability to raise higher-order thinking questions. In addition, participants' critical thinking was developed through analyzing the characters and events in the novel, as one participant indicated, "I could feel that my thinking was stimulated and gradually enhanced after I practiced reasoning and analyzing the characters and events in the novel." Another participant said, "forming questions was difficult and challenging, but I found that forming higher-order thinking questions needed practice and this process truly stimulated my own thinking." During discussions, they had opportunities to think about "why" their group members had such opinions after they listened to their thoughts. Critical thinking was therefore involved throughout the discussion. Furthermore, the process of comparing characters and events in the novel or with their real lives could stimulate students' thinking. One participant said, "Literature circles actually increased my awareness in thinking and provided me opportunities to practice my thinking skills because I needed to summarize the chapters, analyze the characters, ask higher-order thinking questions, give my own opinions, or argue my ideas with my group members. All of these tasks helped me think and organize my thoughts better."

Other Advantages. In addition to the design of literature circles, the participants identified other advantages. "I like literature circles because they better enhanced my understanding of the novel." "It allowed me to interact with people from different departments." Several participants indicated, "Literature circles were

interesting because I could listen to other people's ideas about the novel and their own personal experiences related to their lives." "I could appreciate the novel from a different perspective after listening to other group members' viewpoints." "My imaginations became richer when I put myself in one of the characters in the novel." "It helped me create more thoughtful questions." "It helped me develop the habit of reading." "It was a relaxed way of learning English."

Disadvantages of literature circles

Apart from the advantages of literature circles, the participants encountered several difficulties while they were participating in the literature circles. For example, some participants mentioned that they felt tired from the heavy workload they had in class. Furthermore, the difficulty level of the reading materials was a problem, for some participants. One participant said, "Some novels were long and more difficult to read, it took me a lot of time to finish reading the assigned chapters and doing the homework." Another participant said, "Besides the homework of literature circles, I still had other homework from other courses. Sometimes I had to read until midnight and I was still not able to completely finish reading the assigned chapters especially novels that were longer and harder." In addition, several participants pointed out that they had difficulty expressing ideas in English, which frustrated them and hindered participation. As one participant indicated, "My English ability was limited, which made it very difficult for me to freely express my thoughts to others. This was quite frustrating." In addition to participants' limited English ability, a number of them mentioned that a barrier causing ineffective discussion was when one or more than one member in the circle did not complete their work, failing to read the assigned chapters or not being well prepared in terms of their assigned roles. This obstacle would then discourage those participants who had done their best to prepare and were

ready to have a collaborative discussion. In addition, several participants pointed out that their conversation sometimes would go off topic, especially when they were sharing their personal experiences or ideas. Many questions would be asked when the sharing was interesting, as one participant indicated, “Sometimes when I was sharing my experience, my group members were curious and would continue asking me many questions that sometimes were not even related to the topic. Therefore, we spent too much time discussing off-topic ideas and ignored other important questions.”

Computer-mediated Literature Circles

When the participants in the online group were asked whether they liked using MSN for literature discussion, according to table 4.12, the majority of the participants enjoyed discussing through MSN. Many of them believed that MSN is a very popular communication device for young people all over the world. Therefore, they found it attractive and creative when it was implemented in literature discussions. Several participants indicated, “I use MSN to chat with my friends almost every day, but I never thought of using it for group discussion. This was so cool.” Besides the popularity of MSN itself, some participants pointed out that online discussion helped them express their ideas and opinions easier than in a face-to-face environment. One participant said, “I’m very shy and often feel embarrassed when sharing with others. However, I felt comfortable and relaxed when I discussed literature online with my group members.” Several participants admitted that they felt more secure and were more willing to take part in the discussion when they hid behind a screen. The reason behind this is that in educational environments in Asia, students are not used to expressing themselves in front of a group. Furthermore, a number of participants pointed out that one of the advantages of using MSN was the efficiency of the whole

discussion. Some participants said, “it’s different from sharing in the normal classroom… I like to discuss through MSN because everyone can share at the same time. I can give my opinions anytime… it’s very convenient and it’s more relaxed than sharing in person!” Through MSN, all the members in the circle could share at the same time without any hindrance, meaning that each one was given equal participation. In addition to the equal opportunity to share, several participants mentioned that they enjoyed online discussion more than the in-class one because they had more time to think and prepare for an answer or response. Many participants said, “I have more time to think and then answer the questions.” However, a few participants voiced their dissatisfaction with using online discussions due to their slow typing pace, as a participant noted, “I typed very slow, so it’s hard at the beginning of the first semester. But I got better at the end…I think discussing face to face is better.” In addition, some of them felt discouraged or even unmotivated when they were placed in a so-called “highly restrictive” environment. This often failed to reflect participants’ own interests.

Table 4.12 Online Participants’ Attitude toward Using MSN in Literature Circles in the Pre- and Post-Surveys

Online Group	**Likes**	**Neutral**	**Dislikes**
Fall 2007 (Pre-Survey)	81%	15%	4%
Spring 2008 (Post-Survey)	88%	12%	0%

Face-to-face In-class Literature Circles

According to Table 4.13, most participants in the face-to-face in-class literature

circles enjoyed taking part in literature discussions. Several participants pointed out that the small group design allowed them to foster better relationships and interactions with others, as one participated indicated, “face-to-face discussions helped me know my group members more and we gradually had better and smoother interactions with one another.” In addition, face-to-face discussions provide genuine communication. The small group design is rather similar to the regular friend gathering, which is relaxing and informal. A participant said, “When I was discussing in literature circles, I felt it was like chatting with my friends because expressing my own thoughts or giving opinions are very common in my daily life.” Furthermore, a number of participants mentioned that their speaking ability had been improved. One participant stated, “I found that I am less afraid of speaking English when compared to the first literature circle. I felt a sense of accomplishment in learning English after taking part in literature circles for two semesters.” Compared to 10 months ago, several other participants indicated their self-confidence in speaking had been increased and they were more willing to speak English in front of others.

Table 4.13 In-class Participants’ Attitude toward Face-to-face Discussion in Literature Circles in the Pre- and Post-Surveys

Face-to-face Group	**Likes**	**Neutral**	**Dislikes**
Fall 2007 (Pre-Survey)	84%	13%	3%
Spring 2008 (Post-Survey)	84%	16%	0%

Discussions

Effects of Literature Circles on Participants' Critical Thinking in the Face-to-face and Online Group

First of all, results of this study indicate that participants' reading strategies and behaviors in both face-to-face and online groups were positively affected after a year of taking part in literature circles. This is consistent with Martinez-Roldan and Lopez-Robertson (1999) who found positive impacts on learners' responses to literature. The learners were more able to comprehend, notice patterns, make inferences, and connect life stories or experiences with literature. In addition, Lin (2006) conducted a study in which learners developed useful reading strategies and were attracted to literary work after participating in a number of literature circles. Similarly, this present study allows the learners to learn more about their own reading strategies and behaviors, which then helps them to be more aware of their own thinking before, during, and after reading. This was a valuable experience to many Asian students who were not given much opportunity to do this kind of literature reading.

As the results shown in the second part of the Self Assessment of Critical Thinking survey, this present study indicates that improvement was found in both the face-to-face and online groups in terms of all levels of Bloom's Taxonomy. For the in-class group, the highest mean difference was item 5, meaning the participants' ability in making connections between the text and their personal life experiences was enhanced. This was consistent with another finding of this present study where level 3 questions (application) had been greatly raised. Similar to Short (1993), the participants were able to connect the people and events of the novel with their own personal life. On the other hand, the highest mean difference was item 18 in the

online group, indicating the participants' ability in making predictions on the next chapter or the ending of the novel was greatly developed. When we look closely to the mean difference between the two groups, participants in the online group made greater difference than those in the in-class group in every single item, especially in the items reflecting higher-order thinking. Among these 18 items, items 9, 16, 17, and 18 had a larger difference between the two groups. Item 9 is in level 4 (analysis), showing the ability to explain how important points in the text fit together. Items 16, 17, and 18 are in level 6 (evaluation), indicating the ability to evaluate the value, judge the characters and events, and make predictions of the story. Through the MSN-mediated discussion, participants typed their questions and responses out. Therefore, they could see the written words on the screen throughout the whole discussion. Thus, the presence of the written words allowed the participants to trace back to the points or responses being made by others, which helped them organize their thoughts before making any evaluations, judgments, and other comments.

In addition, the results affirm the idea of collaborative learning where literature circles did act as an effective tool for participants to work together in small groups toward a common goal (Smith & MacGregor, 1992). This also confirms the findings of Gokhale (1995) in which learners' critical thinking was fostered after participating in collaborative learning. The present study shows that the advantage of working together and engaging in discussion can help learners not only to be responsible for their own learning, but also to increase their awareness of their own thinking. As mentioned earlier in the Review of Literature, face-to-face literature discussions have many benefits in second language learning (Alwood, 2000; Brown, 2002; Day, 2003; Ediger, 2002; Kim, 2004; Lin, 2002; Pitman, 1997; Chiang, 2007; Hsu, 2004). Among all these positive impacts, critical thinking skill is the focus of the present study. Kim (2004) identified five major topical themes in face-to-face literature

discussions: “literal comprehension, personal connections, cross-cultural themes, interpretation, and evaluation” (Kim, 2004). The results of the Self Assessment of Critical Thinking also indicate the growth of all levels of Bloom’s Taxonomy: knowledge, comprehension, application, analysis, synthesis, and evaluation. Interestingly, the results of the present study are similar to the themes that Kim (2004) found.

Although growth was found in participants’ critical thinking in both groups, the results of the independent samples t-test indicate that there was significant difference in participants’ critical thinking between the two groups. When we look closer to the results of both Part I and Part II of the survey, the online group has greater improvement than the in-class group. For example, regarding the mean score differences in level 4-6 of the pre-and post-survey, the online group has 10.08 difference while the in-class group has only 2.35 difference. The greater growth in the online group shows that online discussion is a beneficial tool in fostering critical thinking. The results of the present study support the assumption of several researchers who pointed out that the importance of more time given to participants for reflection before responding in the computer-mediated communication. The increase in the time available to think and consult information before responding in the computer-mediated discussion can help develop critical thinking (Li & Cao, 2006; Staarman 2003; Young, 2003). In addition, this study had a similar finding with a previous study, engaging students in a critical thinking activity using both online and face-to-face methods. The result indicated that “more evidence of critical thinking was found in the online condition than in the face-to-face condition” (Guiller, Durndell, & Ross, 2008). Interestingly, Guiller, Durndell, and Ross (2008) found that more participants preferred online discussion. The reason given for this preference was consistent with the above finding where participants pointed out the value of

having time to think before responding was crucial. They had enough time to think about what other people were saying during the discussion, which was also considered an effective way of practicing or developing critical thinking in this present study. For the in-class group, speaking was the communicative tool for group discussion. On the other hand, writing was used for the online group. It is interesting to note that both groups had positive changes in participants' critical thinking after taking part in literature circles for a year. Thus, the results indicate that either adopting speaking or writing as the communicative device for literature discussion can be an effective way to enhance students' critical thinking.

The above findings were based on participants' self assessment of critical thinking, and the result clearly shows that growth was found in both the face-to-face and the online groups in terms of the higher-order thinking. Consistently, when we look more closely to the questions formed by the participants in both groups, the present study shows that critical thinking questions were raised more frequently in the second semester. As the results shown, a similar decline in the number of lower level questions (level 1-3) was found in both groups after two semesters of participating in literature circles. On the other hand, the number of higher-order thinking questions (level 4-6) increased in both groups. In other words, participants in the two groups overall raised more higher-order thinking questions than lower level questions as the year progressed.

Among the six levels of Bloom's Taxonomy, it is interesting to find out that questions in level one and three were raised the most. Since level one is the basic recall of the literature, it is clear that participants were more able to form this type of question in the first semester. The reason why level three questions were also greatly formed might due to the connection between the participant and the text. Level three is the application phase where readers can make personal connections or past

experiences with the people or situations in the text. This finding is consistent with Kim (2004) who reported the ESL learners often related the text to their own values and experiences. The learners would share their personal stories in the discussions when the questions inspired personal associations. However, the results of the present study shown that questions in level five were asked the least in both groups. At this level, creativity is needed in order to form questions that might relate to new ideas such as creating a plan or designing a product. Kim (2005) and Wong (2004) both stated that Asian students lack creativity when compared to Westerners. Rudowicz and Ng (2003) pointed out that "it is harder for Asians than Westerners to think, feel, and act in a creative manner because Asian society is tightly organized, collectivistic, hierarchical, and face-conscious" (cited in Kim, 2005). This lack of creativity might explain why questions in level five were not frequently raised in both groups in this present study.

Nevertheless, the results of the present study show that half of the participants' critical thinking skills in both groups were improved. This progress confirms to previous research, indicating the process of learners giving, receiving, sharing and responding to ideas in face-to-face (Martinez-Roldan & Lopez-Robertson, 1999; Ketch, 2005) and computer-mediated discussions (Gambrell, 2004; Goh, Dexter & Murphy, 2007; Wickersham & Doley, 2006) truly stimulated students' thinking to more higher levels, thus enabling them become better critical thinkers. MacKnight (2000) stated that "the level of questions asked influences the depth of thinking that occurs" (p.39). In this present study, there were a great number of participants who showed improvement in the skills of raising critical thinking questions. These critical thinking skills were found in both the face-to-face and online groups, suggesting that both modes of group discussion are suitable and beneficial in cultivating critical thinking. This finding is consistent with Guiller, Durndell, and Ross (2008), showing

"the nature of the discourse differed between modes of discussion and that these modes may fulfill complementary roles in a critical thinking task" (p.197).

Although half of the participants in both groups displayed growth in critical thinking skills, the other half did not show much change in these skills. One of the reasons might be variation in participants' English proficiency. According to Lun, Fischer, and Ward (2010), sufficient English proficiency is needed for the improvement of critical thinking. They further pointed out that, "if a critical thinking task requires information processing in a language, students who are proficient in that particular language would be able to spare more cognitive capacity in the working memory to think critically" (p.614). The insufficient English proficiency might explain why some participants in this present study did not successfully improve their critical thinking in terms of their skills of raising higher-order thinking questions. Asian students might then be discouraged from expressing their critical thinking if the sufficiency of the target language in a certain L2 activity is not proficient enough (Lun, Fischer, & Ward, 2010).

Participant Perceptions of Literature Circles

As the results from the post-course open-ended questionnaire shown, the majority of the participants enjoyed literature circles (73% for the online group; 77% for the face-to-face group) and had more positive comments toward literature circles. The participants in the questionnaire also indicated both the benefits and difficulties they experienced over the year of taking part in literature circles.

Similar to many previous studies (Martinez-Roldan and Lopez-Robertson, 1999; Hsu, 2004; Kim, 2004; Chiang, 2007; Sai and Hsu, 2007), literature circles did provide the participants with the opportunity to become deeply involved in reading the target language. The participants experienced the pleasure of reading, which then

greatly contributed to the appreciation of literary works.

Regarding the design of literature circles, many positive comments were provided by the participants in both the face-to-face and online groups. One of the significant findings from this study is that the participants were motivated to read and by this means improve their foreign language skills during the process of this research. They experienced a different atmosphere from practicing the target language. Pitman (1997) and Kim (2004) found that students benefited from the model of literature circles in that their reading skills in the target language improved. Pitman also reported that literature circles enhanced students' speaking and writing skills. In addition, Zieger (2002) demonstrated one of the advantages in literature circles was vocabulary learning. Throughout the year, participants in this study were exposed to a certain amount of literature reading. Many of them reported that they had to either look up the unknown words or explain those words to their group members. Therefore, participants' vocabulary bank was gradually increased as the reading activity continued.

One of the main targets in the open-ended questionnaire was to explore how participants' critical thinking was affected. In other words, did literature circles play a major role in developing participants' critical thinking? The responses were similar to other researchers' findings where the opportunities of exchanging thoughts and opinions, especially with their personal experiences or knowledge, promoted not only effective learning but also higher level of critical thinking skills (Goh, Dexter & Murphy, 2007; Li & Cao, 2006; Moore & Marra, 2005; Yang, 2008; Zhang, Gao, Ring & Zhang, 2007). In addition, the results of the present study support the finding of Daud and Husin (2004) of a positive effect from developing learner's critical thinking through adopting literary texts in language teaching. Similarly, many participants in both groups of this present study brought up a common perception,

which is the connection between literature and thinking. They mentioned that they began to be more aware of their own thinking, which was often stimulated during reading and the process of participating in literature discussions.

The results of the study show that 84% of the participants in the face-to-face class enjoyed their group discussions. They experienced a different type of language learning, which they found the communication genuine. As Bedel (2011) concluded in his study, literature circle is an effective way of bringing the classroom interaction to life. The face-to-face group in this present study confirms to what Bedel (2011) had found: participants' self confidence was increased and they were more able to express their own ideas and opinions to one another. This active participation encouraged learners to practice their speaking skills in L2; thus gradually had improvement.

When participants in the online group were asked of the perceptions toward adopting MSN as a communicating tool in group discussion, the majority of the class (88%) enjoyed the process of the online discussions. This was similar to the findings of Warschauer (1997) in which his second language learners were more likely to participate in computer-mediated than in face-to-face discussion due to the comfort zone that were given in the computer-mediated discussion. Some participants in this present study reported that they felt relaxed and stress-free during the online discussions. More importantly, equal participation among learners was also another major finding in this present study since this benefit was consistent with many other researchers' studies (Warschauer, 1997; Warschauer, 2001; Young, 2003; Zhang, Gao, Ring & Zhang, 2007). The advantage of having equal participation in online discussions did allow all the group members to speak at once without having to wait or be interfered by others; thus giving the participants a comfortable environment without any anxiety of expressing themselves.

In the post-course open-ended questionnaires, the participants in both groups did express their satisfaction of the literature circles. Nevertheless, difficulties or dissatisfying components were found including the reading materials and frustration. Many participants in both groups pointed out that some of the reading materials were hard to read due to the size and difficulty level of the books. They further clarified that their pace of reading in L2 was slower than reading in L1; therefore, they often found that they had insufficient time to complete the assigned reading, especially when they read books that contained many unknown words. For this reason, self-selection or choices of reading materials were suggested. In other words, participants could be given a number of books to choose from in the first class.

Finally, besides reading materials, frustration was mentioned by participants in both groups. Several participants in the present study reported that some of the group members were tempted to chat or engage in "superficial net surfing" (Warschauer, 2001) during group discussions. This problem easily reduced interactions between group members and even caused a decline in some participants' passion or desire to contribute to the literature discussion group. Similar to Warschauer (1997) and Jonassen (2001), frustration was also found. However, the reason was due to the absence of non-verbal cues in which communications tend to be more task-oriented. This type of communication therefore hindered participants' social relations and interactions. In addition, consistent with the findings of Angeli, Valanides, and Bonk (2003), the temptation to "chat" about participants' personal stories or experiences often brought curiosity and interest among the group members. Furthermore, this easily affected other group members who were well prepared and expected to have a constructive discussion.

CHAPTER 5

CONCLUSIONS

This chapter first provides the summary of the study. It then presents the main findings and limitations of the study. Furthermore, the pedagogical implications will be discussed. Finally, suggestions for future research will be provided.

Summary of the Study

The purpose of this study was to investigate the effects of integrating literature circles into freshman English classes on cultivating critical thinking skills among adult Taiwanese EFL learners. Data was collected from two groups of learners, which were the computer-mediated and in-class face-to-face literature circle discussion groups. Further, the researcher was interested in participant perceptions of taking part in literature circles. The major findings of the study are summarized as follows.

Summary of Major Findings

In this section, the major findings obtained from this study regarding the effects of participants' critical thinking through the implementation of literature circles will be mentioned. In addition, the participant perceptions of literature circles will be included as well. The following findings will be presented in the sequence of the three research questions proposed in this study.

First of all, quantitative data gained from the results of the Self-assessment of Reading Strategy and Critical Thinking Survey was used to answer Research Question 1: Are there any differences between in-class and online discussion groups

in terms of their critical thinking? If yes, what are they? The statistics show that both the face-to-face and online groups made significant progress in all levels of Bloom's Taxonomy, specifically the higher-order thinking from level four to six (the main focus of this study). During the year of participating in literature circles, participants in both groups were exposed to literature discussions that required their thinking abilities. As constant opportunities were given to participants in practicing their thinking skills, the results of analysis indicate that significant progress in participants' thinking, especially the higher-order thinking, was found in both groups. However, the results of the Independent Samples T-test indicate that there was significant difference regarding the two groups' performances in participants' critical thinking. The online group appeared greater growth in crafting higher-order thinking questions than those in the in-class group. The difference might due to the advantage of having the written words shown on the computer screen, which allowed the participants to have an extra "channel" to focus on what they were discussing. They were given more time to think before they gave any responses to the group.

Second, qualitative data received from the questions that participants raised for the literature discussions over the year was used in response to Research Question 2: Are there any differences in the critical thinking skills of participants after they participate in a literature circle for a school year? If yes, what are they? The results indicate that participants in both groups raised fewer lower level questions but more higher level ones in the second half of the study, which represents positive progress in participants' critical thinking skills. The fact of improvement in the number of higher-order thinking questions being raised by the participants in the two groups indicates that the participants' critical thinking skills in both groups were fostered after a year of taking part in literature circles. However, no difference was found regarding the two groups' performances in forming critical thinking questions.

Third, findings gained from the open-ended questionnaire were adopted in response to Research Question 3: How do participants perceive the learning experience in both the in-class and online literature discussions? The results show that majority of the participants in this present study enjoyed literature circles. 84% of the participants in the in-class group enjoyed their face-to-face literature discussions because they helped the participants develop better interaction and also improved their speaking skills in L2. As for the online group, 88% of the participants liked the idea of using MSN for their literature discussions because this computer-mediated discussion provided them a relaxed and stress-free environment with the benefits of equal participation. In addition, the participants agreed that literature circles enhanced their English abilities, including reading, speaking, writing, and vocabulary. Regarding participant critical thinking, many of them mentioned that they started to be more aware of their own thinking as they read or discussed the books in literature circles. Difficulties identified by participants included reading materials and the frustration they faced during discussions.

Pedagogical Implications

Several pedagogical implications were drawn from the results of the present study. First, the results of the study suggest that literature circles can help learners not only to be more aware of their thinking, but also to learn more about what critical thinking is and how it can connect to their second language learning. Therefore, critical thinking skill is recommended for language teachers, especially those who teach Freshmen English in universities in Taiwan and those who have a desire to help learners improve both their reading and thinking skills. When critical thinking is applied in second language teaching, learners should be given more patience and

encouragement since critical thinking is not commonly viewed as an important element of education in many Asian countries. Furthermore, it might be the first time for many language learners to approach activity that requires their thinking ability in a language classroom. Therefore, a clear and thorough instruction in critical thinking and its application in literature circles is needed in order to help learners understand the value of critical thinking in second language learning.

Second, the results of the critical thinking survey indicate that significant difference was found in participants' critical thinking in both groups. Thus, the implementation of literature circles in language teaching either using face-to-face or online approaches may be beneficial. No matter which approach of literature discussion is being used, students' English proficiency level needs to be taken into consideration. As Lun, Fischer, and Ward (2010) indicated, a certain level of language proficiency is required in order to activate the working memory for cognitive processing. Therefore, critical thinking skills are more likely to be assessed with a group of students who have sufficient English proficiency and confidence in using the language.

Third, raising higher-order thinking questions is helpful to language learners because this not only triggers their thinking, but also improves their speaking ability. It is then suggested that teaching that teaching learners questioning skills in EFL courses is worthwhile since questions do provoke thinking, and other language skills are also applied. The instruction of questionings can be applied to all levels of learners since questions allow learners to organize thoughts before giving any responses. If learners in all levels were given enough opportunities to practice the cognitive strategies through conversation or discussion in the language classroom, they would have engaged in the thinking process or practiced how to use the cognitive strategies to gain meaning or be able to express their own thoughts with

others in the target language.

Fourth, in an EFL context, literature circles not only has the potential to be a tool of great use in the language classroom, but also serve as a vehicle for a rich reading experience and language learning. Though frustration was mentioned in the post-course questionnaire, the majority of both groups favored literature circles, which provided them a new way of learning English and opened up their minds to the connection and value between their own thinking and literature reading.

Limitations of the Study

The present study has several important limitations. First, though significant progress in critical thinking was found in participants, it is uncertain whether the participants' improvement in critical thinking resulted only from literature reading and group discussion. Since the participants were freshmen in a university, they might also be exposed to other reading including books from other classes or their own pleasure reading. This reading exposure is also related to their growth in higher-level thinking. Therefore, their improvement in critical thinking might not only come from literature circles in this study, but also from other sources. Second, the reading materials used in this study were assigned books. It is possible that the participants might not be interested in reading some of the assigned novels. In other words, the participants might be more actively motivated and involved in literature circles if they had been given opportunity to choose their own reading materials. This might then affect not only their perceptions of literature circles, but also their willingness to fully participate in this reading activity. Thirdly, the participants in this study were Taiwanese university students; therefore, the results of this study may only be generalized to university freshmen in Taiwan. In addition, this study was

conducted in an EFL context with a limited number of participants. Thus, the results of this study cannot be generalized to students with different English proficiency and language backgrounds. Finally, the researcher was interested in the connection between critical thinking and the questions formed by the participants. More studies can be done to explore other factors that affect participants' critical thinking in an EFL context.

Suggestions for Future Studies

Several suggestions are provided in order to facilitate the implementation of future studies related to literature circles and critical thinking. First, it is important to be aware of the multi-dimensional nature of critical thinking. The present study places the major focus on participants' questions as the measurement of their critical thinking skills. More studies are needed to explore other potential factors that might play a role in participants' critical thinking in literature circles. For example, the responses given for each question might provide a more comprehensive understanding of the relationship between literature circles and critical thinking so that proper instructional strategies can be designed to investigate the power of critical thinking in a language classroom. Since this study primarily focused on students' overall critical thinking through the measurement of their questionings, broad evidence of robust improvement in their critical thinking ability is lacking. Tests of critical thinking, especially related to language learning, can be carefully examined.

In addition, the techniques of giving prompts and feedback can be taught to students since these interactive strategies can help students to achieve a high quality involvement in the text and discussion such as seeking clarification or asking for others' point of view. Participants' thinking skills are then easily be triggered and

expressed. Besides the direct instruction on the interactive strategies, the instructor can spare a class or two for sharing and discussing as a whole class about the techniques of giving feedback and the problems they face during literature circles. For example, sample videos downloaded from the Internet or inviting a group in the class for being the model can help students further understand what a real discussion is and how important it is for each member to contribute their part in literature circles. This step of sharing as a class can encourage students to overcome the communicating difficulties they encounter and consequently increase their confidence.

In order to help students to have a smooth discussion without being tempted to "chat" or go off topic, future studies may be done with the presence of teachers or assistants who guide the students during the discussions. There is no doubt that the assistance and monitoring do play a significant role in guiding and supporting both student interaction with the text and interaction with other students in the group. With the guidance of teacher assistance in each group, students can be more focused on the discussion and it can also enhance their full participation.

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APPENDICES

Appendix A-1

Self Assessment on Critical Thinking(自我對批判思考的評價)

Name: _____ Department: _____

說明: 請誠實地和小心地回答以下的問題
第一部分

1 從不　　2 很少　　3 有時候　　4.常常

閱讀前,

1. 我會先看書的封面，書名並想想我對這本書的看法及預設立場。	1	2	3	4
2. 我會先提出一些問題，如"這是那一類的書?"	1	2	3	4
3. 我會先預測書的內容。	1	2	3	4

閱讀中,

4. 我會問自己一些問題當我有不懂的地方。	1	2	3	4
5. 我會在我腦海中想像書的情境。	1	2	3	4
6. 我會預測故事的發展。	1	2	3	4
7. 我會提出問題，如"這一章告訴我什麼呢?"或"下一章將會發生什麼事情呢?"	1	2	3	4
8. 我會停下來回想，看我是否能記得故事的內容(若有需要，我會重看)。	1	2	3	4
9. 我會用故事和我的生活做連結。	1	2	3	4

閱讀後,

10. 我會花一些時間思考故事的人物，事件和其他書中的訊息。	1	2	3	4
11. 我會把故事的重點總結起來。	1	2	3	4
12. 我會重看故事去找證據回答問題。	1	2	3	4
13. 我會重看我喜歡的部份。	1	2	3	4
14. 我會問自己一些問題，如"這故事是關於什麼?"或"我學到些什麼?"	1	2	3	4

Appendix A-2

第二部分

1 從不　　2 很少　　3 有時候　　4.常常

Level 1: Knowledge 知識

1. 我能記得和認出故事中的人物和事件。	1	2	3	4
2. 我能列舉故事中的人物，地點和其他事件的名稱。	1	2	3	4

Level 2: Comprehension 理解

3. 我能用自己的文字把故事的大綱總結起來。	1	2	3	4
4. 我能解釋"為什麼," 如 "為什麼故事的主角會有如此的行為?" 或 "為什麼會發生這種事情?"	1	2	3	4

Level 3: Application 應用

5. 我能把自己的生活與故事的人物或情節做連結。	1	2	3	4
6. 我能把過去的經驗和知識與故事作聯繫。	1	2	3	4

Level 4: Analysis 分析

7. 我能找出故事中的重點。	1	2	3	4
8. 我能分析故事中的重要角色和事件。	1	2	3	4
9. 我能解釋故事中的重點，相互之間有什麼關聯。	1	2	3	4
10. 我能找出角色與角色之間的相同與不同的地方。	1	2	3	4
11. 我能用別的故事與這故事作出比較。	1	2	3	4

Level 5: Synthesis 綜合

12. 我能合理地組織故事中的重點。	1	2	3	4
13. 我能在閱讀中把自己想像在故事的情節中。	1	2	3	4
14. 我能解決故事中的問題。	1	2	3	4

Level 6: Evaluation 評價

15. 我能判斷故事中的那一個角色是好和壞。	1	2	3	4
16. 我能評估故事的價值或重要性。	1	2	3	4
17. 我能評論故事中的人物或事件。	1	2	3	4
18. 我能輕易地預測下一章(當完成閱讀前一章)或故事的結局。	1	2	3	4

Appendix B

Critical Thinking Assessment Checklist

Types of Questions Based on Bloom's Taxonomy

Class: _____ Date: _____

Name: _____

Level	Definition	Sample Verbs	Frequency
Level 1 Knowledge	Student remembers previously learned information	Write**,** List, Label**,** Name, State**,** Define, Recall, Describe	
Level 2 Comprehension	Student grasps the meaning of information	Explain**,** Summarize**,** Paraphrase**,** Illustrate, Distinguish, Identity	
Level 3 Application	Student applies knowledge to actual situations	Use**,** Compute**,** Solve, Demonstrate**,** Apply, Construct, Choose, Predict	
Level 4 Analysis	Student breaks down objects or ideas into simpler parts and seeing how the parts relate and are organized	Analyze**,** Categorize**,** Compare**,** Contrast**,** Separate, Differentiate, Distinguish, Illustrate	
Level 5 Synthesis	Student originates, integrates, and combines ideas into a product, plan or proposal that is new to him or her.	Create**,** Design**,** Hypothesize**,** Invent, Develop, Plan, Revise	
Level 6 Evaluation	Student assesses, critiques or makes judgments based on internal evidence or external criteria	Judge**,** Recommend**,** Critique**,** Justify, Assess, Value, Evaluate	

Appendix C-1 (3316)

Survey on Literature Circles

1. 你喜歡參與“Literature Circles”嗎? 為什麼?

_____

_____

_____

2. a. “Literature Circles”如何幫助你提升英語能力? 請舉例說明。

_____

_____

_____

b. “Literature Circles”如何幫助你提升批判思考的能力? 請舉例說明。

_____

_____

_____

3. 你喜歡跟同學在課堂上面對面討論嗎? 為什麼? 請明確列出你的理由。

_____

_____

_____

4. 在“Literature Circles”中，你認為那一個角色對於閱讀小說(如 summarizer, connector, illustrator…)最有幫助?那一個角色是最沒有幫助? 為什麼?

_____

_____

_____

5. 你在 “Literature Circles”的討論中遇到什麼困難? 請舉例說明。

_____

_____

_____

Appendix C-2 (3373)

Survey on Literature Circles

1. 你喜歡參與“Literature Circles”嗎? 為什麼?

2. a. “Literature Circles”如何幫助你提升英語能力? 請舉例說明。

   b. “Literature Circles”如何幫助你提升批判思考的能力? 請舉例說明。

3. 你喜歡用 MSN 討論嗎? 為什麼? 請明確列出你的理由。

4. 在“Literature Circles”中，你認為那一個角色對於閱讀小說(如 summarizer, connector, illustrator…)最有幫助?那一個角色是最沒有幫助? 為什麼?

5. 你在 “Literature Circles”的討論中遇到什麼困難? 請舉例說明。

Appendix D

Bloom's Taxonomy

1. Knowledge

- What, When, Who, Where, How

E.g. - Where did the White Witch live?

- What were Lucy's brothers and sister's names?

2. Comprehension

- Can you describe... ?
- Why did... ?
- What is the difference... ?
- Explain why... ?

E.g. - Can you describe Narnia?

- Why didn't Lucy's brothers and sister go with Lucy to Narnia?

3. Application

- What would happen if...?
- Do you know someone like...?
- If you had to...what would you do?

E.g. - What would happen if Aslan lost the battle at the end of the story?

- Do you know someone like Edmund?

4. Analysis

- Which part of the reading was the funniest?
- Why do you think... ?
- What is the relationship between... ?
- Tell some things that could not have happened in real life.

E.g. - In the story of Narnia, which part was the saddest?

- Why do you think Aslan was willing to save Edmund?

5. Synthesis

- Write a new title for this story
- What happen if... ?
- Make up another ending to the story that still fits the details.

E.g. - Make up another ending of Narnia.

- What would happen if there was no Aslan?

6. Evaluation

- Was the main character in this reading good or bad? Why?
- Would you agree that...?
- What is your opinion of...?

E.g. - Was Edmund in Narnia good or bad? Why?

- What is your opinion about justice?