MOTIVATIONAL ISSUES OF TAIWANESE VOCATIONAL HIGH SCHOOL STUDENTS IN AN ENGLISH AS A FOREIGN LANGUAGE CLASSROOM:
AN ACTION RESEARCH STUDY

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The aim of the study was to explore low-achieving language learners’ motivation with the infusion of cooperative learning instruction in an English as a Foreign Language classroom (EFL) at a vocational high school in Taiwan. The main cooperative learning method implemented by the teacher in this study was the Group Investigation (GI) method. The participants of this study were 47 students of mixed genders, ages, and academic majors studying English in a vocational high school in Keelung, a city in northwest Taiwan. They were identified as low-achieving English learners in school according to their prior Basic Competence Junior High School Entrance Examination (BCT) administered by the Ministry of Education in Taiwan.

This study adopted both qualitative and quantitative research methods, but primarily the qualitative action research provided its main framework and was supplemented by quantitative elements. In the qualitative approach, a detailed system of data collection using appropriate research instruments, such as individual student interview, classroom observation, student artifacts, and weekly researcher journal was used. In the quantitative approach, the $t$-test statistical analysis and a repeated measures analysis of variance were used to synthesize the research findings.

Overall, the findings of this study show promise that practicing the teaching
skills of the GI model applied in the context of cooperative learning instruction increase these students’ motivation to learn a language as well as develop more positive attitudes in action research context. However, some problems and difficulties arose for both students and teacher during this research process. The findings from this study and the researcher’s self-reflection have also been included as well as pedagogical implications and recommendations for future research.
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Furthermore, I acknowledge the school principal, who gave me the privilege of conducting a study in his school as well as the participants in this study. My deepest appreciation goes to my dear parents and sister, who inspired and supported me during my pursuit of the doctoral degree. Finally, I thank my friends Russ Miller, KuangHua Su, and Li-Chen Wang, whose unflagging encouragement meant so much to me. I dedicate this dissertation to all of them.
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CHAPTER I
INTRODUCTION

For a long time, English education in Taiwan has gained great attention. Students’ performances in English are inadequate when compared with other Asian Countries. Vocational high school students have been questioned about their inadequate English performance (C.-Y. Liu, 2003); negative learning attitudes and motivation (M.-L. Chen, 1996). In addition, few researchers focus on vocational high school students, comparing with high school students’ English learning (Shih, 2005). In this study, I focus on improving vocational high school students’ English learning motivation in an EFL classroom because students with high motivation are likely to produce positive attitudes and are willing to expend all their efforts in learning language (R. C. Gardner, 1985a). The main purpose of the present study was to explore the teacher–researcher implementation of the group investigation (GI) model under the cooperative learning instruction and to explore students’ responses to this teaching in their motivation and engagement in learning English in Taiwan.

Background of the Study

A continuously growing number of non-English speakers take the first step to learn English somewhere in the world each day. Whenever their purposes for learning English have involved personal interest, a better job, travel, or business with the larger world, English has impacted their daily lives (Graddol, 1997). At the end of the 20th century, an estimated 2 billion people were in the process of learning English (Kachru, 1997; Naisbitt & Aburdene, 1991). The largest number of those learning English as a foreign language at that time was found in China (Yong & Campbell, 1995), but the people most excited to invest in the language-learning movement were found in
Taiwan (U.-C. Wu, 2004).

Generally speaking, English education has been practiced in contemporary Taiwanese society. The average Taiwanese student has spent 6 years studying English from middle school to high school. Most students have received extra English education after regular school. Moreover, the English teachers have devoted increasing amounts of time correcting students’ assignments and supervising students on weekends so they could pass rigorous assessments and examinations and meet not only the expectations of their parents but also of their teachers. Ironically, some statistical reports reflected that Taiwanese students’ English abilities need to be improved.

*The Issues Emerging as a Result of Students’ Disappointing English Performance*

According to 2003 statistics provided by the Educational Testing Service (ETS) in Taiwan, the average TOEFL score of Taiwanese students was only 198 out of 677, ranking Taiwan seventh from the bottom among all Asian nations. Not only did Taiwan rank below Japan (12th) and South Korea (14th), but it also lagged behind Third World nations, such as Pakistan (15th) and Vietnam (13th) (“Are Foreign English Teachers”). Research done in Taiwan on Taiwanese college students’ English performance showed that 30% of those students demonstrated the English performance of junior high school students; however, 8% of them were not even as competent as elementary school children (“Are Foreign English Teachers”).

In fact, the issue under investigation arose as a result of Taiwanese students’ falling behind on the English performance ranking scale compared with other Asian countries on the Test of English for International Communication (TOEIC) from 2002
TOEIC measures the English performance of people whose native language is not English, and the test scores indicate the suitability of their English for the workplace (TOEIC, 2005). The report, derived from a random selection of 750 Taiwanese college students’ English performance with in-depth analysis and exploration, showed that students’ language performance reached only the level of understanding simple expressions (e.g., How are you?), but had difficulty in recognizing more complex English sentences (e.g., a bus schedule and reading a restaurant menu in English) (Kao, 2005).

C.-C. Lee’s (2008) study indicated that Taiwanese students’ academic achievement in English fell into two contrasting categories: Some students exhibited high-level English ability, but others could not pronounce the sounds of English or write the 26 letters of the English alphabet in the correct order. The lowest-score groups were larger than expected (C.-C. Lee). The disheartening report reflected the critical nature of Taiwanese students’ low level of English performance and the importance of rescuing current English education in Taiwan.

How could it have happened when Taiwan is a country which pays great attention to English learning? Why did Taiwan receive these disappointing reports? Something is wrong with English education in Taiwan. What are the remedies to promote and help develop Taiwanese students’ English abilities in order to secure a place for this nation in the global economy? The reasons why learning English is an important activity and have been illustrated in the following section in which I, the teacher–researcher, explored the current trends in learning English in Taiwan by (a) overviewing current trends in learning English in Taiwan, (b) exploring bilingual
family settings in Taiwan, (c) describing the teacher–researcher’s personal
language-learning experience abroad as a rationale underlying this study, (d) defining
an ideal of EFL learning community, and (e) illustrating the implementation of a
learning community in an EFL classroom.

Current Trends in Learning English in Taiwan

Learning English has had the potential to become more and more a matter of
survival in contemporary Taiwan. Parents have expected their children to learn
English as early as possible, and they have invested in English tapes, videos, and
textbooks, sending their children to very expensive kindergartens with native English
speakers for the “English only” learning environment. Adults have learned English
because they believed that they could apply for a higher position in their jobs only if
they had adequate English skills and competencies. With the rapidly developing
popularity of learning English and the continuing emphasis on the importance of
English performance and practice, at the time of this study some language reforms
were put in place or were under consideration.

First, the Taiwan Ministry of Education, schools and some private and public
companies considered setting an English performance standard, such as a minimum
score on the Test of English for International Communication (TOEIC) or the Test of
English as a Foreign Language (TOEFL), to evaluate students’ language abilities in
listening comprehension and reading for people applying to college or seeking
permission to graduate from college; employees such as bank clerks and nurses also
needed to prove English performance when applying for better positions (Hun &
Chen, 2005).

Second, the Taiwan Ministry of Education made English compulsory
beginning in the fifth grade in September 2001 and beginning in the third grade during the 2004 school year (Ministry of Education, 2000). Third, the recruitment of foreign English speakers from Canada, America, and England had been legalized, and these individuals were now teaching English in elementary schools in Taiwan.

Fourth, local Taiwanese professors at the college level earned extra incentive pay if they lectured in English in their classrooms. In summary, government officials believed that the implementation of new policies could promote better English language skills among Taiwanese students, increasing the country’s level of competition in the world; however, I considered using effective pedagogical approaches in the classroom and listening to and dialoging with students, to build an optimal language learning environment.

Bilingual Family Settings in Taiwan

At the time of this writing, most Taiwanese came from bilingual families in which Taiwanese parents often spoke more than one language, such as Mandarin, Taiwanese, and Hakka as well as other aboriginal languages. L.-G. Chang (2004) investigated 175 students, age 5 to 6 years old in bilingual kindergartens in Taiwan. Her study showed that children from bilingual families present higher cognitive and creative skills compared to monolingual language learners.

However, many Taiwanese students were unaware of the benefits of bilingualism to learning English. In fact, English presented a different kind of challenge for most Taiwanese learners because its morphology and syntax differ dramatically from the various dialects of Chinese (Fu, 2003). Students also complained, for instance, about the lack of a consistent relationship between the spelling and pronunciation of many English words. Moreover, Taiwanese EFL
students were further hindered by traditional pedagogy that stressed mechanical drills, repetition, question-and-answer drills, and test-driven teaching (Sue, 2004). Such instructional techniques might enable students to perform well on tests, but they have been ineffective in motivating them to achieve foreign-language skills for the purpose of communication and interaction.

Rational Behind This Study

Several factors piqued my interest in this study. First, I have located some research on reasons for Taiwanese high school students’ difficulties in learning English (K.-S. Tsi, 2003), obstacles EFL teachers faced when students were unmotivated to learn (Chu, Chen, & Shua, 1997), and students’ conceptions of the ideal EFL teacher (R.-H. Chen, 1997); however, available studies lack both in-depth analysis and focus on low achievers’ learning potential and motivation in an EFL context (Sue, 2004). Few researchers have explored the application of the cooperative learning model to EFL classrooms to improve Taiwanese vocational high students’ motivation (K.-P. Chen, 2005; Y.-W. Chang, 2003). Exceptions are those conducted on the low-achievement of vocational high school students, which concluded that cooperative learning is useful in providing low achievers with freedom of movement and opportunities to participate (K.-P. Chen; L.-H. Chen, 2002; S.-C. Lu, 2003; Y.-W. Chang).

Second, I empathized with those students and their feelings of frustration because I experienced the same when I have studied in the USA for 5 years. I wanted to discover how this situation could be ameliorated, especially for those students identified as low achievers, that is, students generally ignored by the education system (Shih, 2005).
Brookfield (1995) stated: “If we care about helping our own students learn, the experience of struggling as learners ourselves will be seen as a kind of privilege” (p. 50). Thus, putting ourselves into the role of learners should significantly impact the way we teach in the classroom. When I studied in my Ph.D. program, I realized that language teaching and learning should take place in an environment informed by interaction (Richards & Rodgers, 2001), one that features appropriate levels of input, output, and context immersion (Kagan, 1995).

In fact, I was not enthusiastic but I was afraid to attend the classroom learning activities. I was not worried that I should have a full understanding of the reading comprehension or written assignments because I got help from using a dictionary and from the school writing tutors. However, I was struggling with listening comprehension and oral expression because there were lots of interactional discussions and thinking skills involved in the classroom activities. I realized that my responsibility as a student was not simply to receive knowledge from which the reading contents or professors’ lectures but instead to challenge my critical thinking and express my ideas with others in English while studying in the U.S.A. R. H. Gardner (2001) mentioned that language learning is a time-consuming process. The more language learners active participate in target language communication in class, as the more likely they show improvement in language proficiency (Dobinson, 2001). I was surprised I could survive and learned from the class which focused more on classroom interaction.

In addition, during which time I conducted two studies (H.-S. Chen, 2005; Y. Chou, Chen, Wang, & Zuo, 2005) to address my personal learning experiences abroad: I found that language learning with a caring teacher’s guidance and encouragement
was essential. I conducted my self-study entitled “Action Research: How I Have Learned From My Learning Strategies,” I explored the painful experiences I had in classroom interaction, my fear of speaking in front of a class of American students. In truth, I required a tremendous amount of confidence to speak English as a foreign language before a large group of fellow students. I remembered I had a hard time talking in front of the classroom.

Fortunately, interaction with a professor helped me feel less hesitant when talking. I remembered one time when I was speaking slowly and indistinctly. A classmate interrupted and wanted to present her idea, but the professor said gently, “OK, I will listen to your idea, but let her finish first.” I was greatly encouraged by that; I felt respected by my professor. In fact, being a minority student with limited English language skills, I was very intimidated at that time and needed support, even a friendly smile, from my professor. I needed a tremendous amount of encouragement to speak up in class because I was afraid to share my ideas, worried that they might be unrelated to the content of classmates’ discussion.

This incident caused me to reflect on my role as a teacher and led me to show greater understanding and patience for students as they faced obstacles in learning a new language; it also reinforced my belief that learning will occur only when a learner is eager for learning and less afraid to learn new things.

Another study I did with other Taiwanese students showed that we shared the same concerns and struggles in classroom interaction. For instance, one of the participants said, “I faced a great challenge in [a particular] class because I always felt lost. I thought that was because I did not have a well-developed English background or did not study hard enough. I felt bad about my learning abilities” (Y. Chou et al.,
2005, p. 32). After making an appointment with the professor, she said: “I can feel the professor’s special care and concern for me. I know she is always terribly busy with her teaching and research but still shows her concern for my work” (Y. Chou et al., p. 23). As a result of these studies, I became interested in creating a caring and an interactive language-learning environment for engaging those low-achieving language learners in an EFL classroom.

Defining an Ideal of EFL Learning Community

Language is used for communication. New language acquisition occurs as a result of interaction, communication, and discourse (H. D. Brown, 2000); and the learning community derives from the interaction model. Groups serve as communities for engaging in interactive activities during the learning process, and group members spend enough time together forming a set of habits and conventions for completing certain tasks and goals (Wilson, 1996). The aim of the learning community is to provide both learners and instructors with an opportunity for increased intellectual interaction and shared inquiry.

In fact, researchers have broadly explored the role of the learning community model in facilitating student success, developing effective learning habits, and cultivating effective learning skills (Cicerone, 2005; DuFour, 2004; Harris, 2001). Before continuing, the differences between EFL and English-as-a-Second-Language (ESL) contexts require clarification.

Language learning in a Taiwanese EFL context, however, has been more restricted than in some other contexts. In many ESL learning environments, students are exposed to English-language learning and interaction both inside and outside the classroom, such as in the case of Taiwanese students studying English in the United
States. On the contrary Taiwanese students pursuing English in the EFL learning environment have typically experienced limited exposure, largely confined to classroom interaction.

Cambourne (1993) claimed a learning model—immersion, demonstration, expectations, responsibility, approximation, practice, engagement, and response for learners’ learning development. Therefore, EFL teachers in Taiwan might consider creating classrooms in which students are able to be completely surrounded or immersed by the target language learning context, to receive many demonstrations from their teachers, and to have chances to practice or use what they have learned from the class. As a result, students can readily and easily be engaged in learning tasks.

*The Implementation of a Learning Community in an ESL classroom*

Researchers have suggested that the learning community supports an effective instructional approach (Cicerone, 2005; Dodge & Kendall, 2004; Gabelnick, MacGregor, Matthews, & Smith, 1990; Jones, Laufgraben, & Morris, 2005; Schmoker, 2004; Taylor, 2002; Whatley & Canalis, 2002). This approach has challenged traditional teacher-centered instruction and has promoted positive student learning attitudes and interests (DuFour, 2004; Landa, 1981; Pitri, 2004).

Not surprisingly, the learning community has been broadly applied in an ESL context. Flower (1996) explored the writing performance of a group of ESL students as they worked cooperatively on a real-world task developed by the teacher. They worked in groups to develop a drug-education brochure by visiting neighborhoods and interviewing residents, which helped them function as planners, problem solvers, and skilled writers of English. Kong and Pearson (2003) evaluated the reading ability
of students by studying a learning community comprising fourth- and fifth-grade students with different cultural backgrounds and linguistic knowledge. First, the release of responsibility from teacher to students makes students feel they are valuable, respected, and comfortable sharing their knowledge and experience. Second, students are guided through reading, talking about, and responding to literature-based books so that they can take a more active role in their own learning, eliminating teacher ownership of the process of learning, typical in the traditional classroom.

In summing up the power of the learning community, we cannot ignore its potential effect on students’ language learning. Thus, in this study, I wanted to develop my ideal of teaching practices, applying it by creating a classroom learning community in which students interacted, cooperated, learned by doing, and developed higher-level thinking skills, instead of simply answering yes–no questions. Moreover, they would be supported by a caring teacher and by their peers as well. Students are responsible for their own learning and are capable of making decisions, solving problems, and valuing themselves, their knowledge, and their experiences as independent learners. English must no longer feel like a heavy burden for students.

Statement of the Problem

Among the residents of Taiwan, language competencies—especially English-language skills—have been extremely valuable assets for those seeking lucrative career options. Despite this market-oriented pressure to learn English, statistical studies of Taiwanese students have suggested that students’ English learning attitudes need improvement (R.-C. Chang, 2004). In this study, I hoped to shed light on ways that teachers build a learning community to stimulate levels of motivation and involvement among EFL students in the classroom because motivation plays an
important role in learning a foreign language (R. C. Gardner, 1985a). Strategies to be applied in the study included inquiry questions on class-related topics, group discussions, dialogue among peers (as well as with the teacher–researcher), and problem-solving activities designed to motivate students to take responsibility for their learning.

In fact, I have experienced some difficult situations regarding EFL instruction in vocational high school and students’ negative learning attitudes. In the following section, I discuss the context of EFL curriculum in vocational high school in Taiwan and to illustrate the fact that most of students in Taiwanese vocational high schools are low achievers in English.

Summary of Vocational High School Education in Taiwan

Generally speaking, the aim of vocational high school education is to provide students with basic technical skills enabling them to join the employment market after graduation. However, at the time of this writing, Taiwanese people still considered a higher educational degree necessary for a better chance to apply for a job. Therefore, another choice for vocational high school graduates is to continue their education after 3 years of schooling. Two-year junior colleges of technology and 4-year programs at colleges or universities of technology are provided. The ultimate goal for these schools is to educate students for mid-level technical and managerial positions in their workplace (“Technological and Vocational Education”).

Chinese, English, mathematics, and two professional subjects are required, and students’ academic comprehension is evaluated in these subjects during the school years. Schools have promoted the highest standards for the purpose of recruiting students, and school curriculum has focused on improving students’
academic performance. To do so, English teachers in Taiwan have been expected to explain every single word, to analyze the complicated grammar used in each chapter of the textbook, and to administer written quizzes to help students familiarize themselves with the Technology Vocational Education Joint College Entrance Examination, which most of them must take in the future. However, teachers’ expectations have differed widely from the students’ academic performance toward accurate written English assignments by following those routine learning activities in an EFL classroom.

During my five years of teaching English to vocational high school students, I have seen that vocational high school students seldom achieved academic excellence when they were in the middle school; moreover, they have been labeled as lower achievers in academics (Sue, 2004). At the time of this writing, a controversial statement reported that vocational high school students were the main source of the largest recorded discrepancy between good and poor English performance on the 2005 Joint College Entrance Examination in Taiwan (San, 2005), the average low-achieving learners’ English performance on their Basic Competence Junior High School Entrance Examination (BCT) was 15 out of 60 points (W.-C. Chang, 2006). In this study, the participants who were labeled as the low achievers received only 11 out of 60 points.

Few students really enjoyed learning English, and at worst most of them had already abandoned the idea learning English. As a result, students have consequently presented negative behaviors, such as sleeping, listening to the MP3, chatting to each other, or working on assignments for other classes in the EFL classroom. In fact, these behaviors were typical of what has happened in my EFL classroom and in the
classroom of other subjects in my school as well. My experiences are similar to the ones in Lo’s (2005) study. In her study she explored a Taiwanese ninth grader who complained: “I don’t understand why teachers like to discourage our confidence, especially each time I [took a] test” (p.32).

Vocational high school English teachers in Taiwan have the responsibility and obligation to rethink what we have done in our EFL classrooms. The way we taught in our EFL classroom, such as the question-and answer exercises, repetition drills, and word-for word translation inspired neither confidence nor positive attitudes about learning English. Needless to say, students’ academic performance in English learning was below average. Students had given up on English learning and had no interest in English at all. Therefore, we cannot continue to discourage them and ignore their feelings without helping them. What can we do to improve and cope with these learning settings and how can we practice effective pedagogy instruction so that the students show fewer avoidance behaviors (e.g., sleeping, playing MP3 etc), but are more engaged (e.g., curious, confident, and willing to experience the challenge of learning a new language in an EFL classroom.

Purpose of the Study

The purpose of this study was to investigate the learning community in an English-as-a-Foreign-Language (EFL) classroom—in general, the infusion of cooperative learning and in particular, the group investigation (GI) model (Sharan & Sharan, 1992)—in order to help the EFL teacher motivate low-achieving language learners to study English in Taiwan and to promote interaction as well. Observation and analysis for this study were conducted by using action-research methodology during a 15-week period (an academic semester) in the researcher’s EFL classroom.
Focusing on 47 Taiwanese vocational high school students in Keelung City, this study was conducted at the same time a high percentage of Taiwanese EFL students had fallen into high- and low-performing categories, a situation drawing widespread concern and prompting the slogan, “Rescue our children whose English performance is below average” (R.-C. Chang, 2004).

*The Integration of a Cooperative Learning Community into an EFL Classroom*

Based on the philosophy of interaction, cooperative learning has proven useful in classroom practice (Panitz, 1996). Panitz defined cooperative learning in terms of people working together with respect, capitalizing on individual members’ abilities and contributions, and sharing authority and responsibility for the group’s actions. In the present study, a cooperative learning community is defined as one in which members actively participate in dialogue and operate with the following considerations in place: (a) curriculum considerations in which Gardner’s (1993) multiple intelligences (MI) are applied in order to meet the needs of individual; (b) curriculum also has been developed with an emphasis on cooperative problem-solving activities designed to inspire motivation, challenge thinking, and facilitate social skills through group discussion and other interaction (Sharan & Sharan, 1992); (c) affective considerations in which a caring teacher supports individual competence in a secure, low-anxiety EFL classroom environment (Krashen, 1981), allowing all students to feel respected, less afraid to make mistakes, and willing to challenge themselves in an EFL classroom. The foregoing concerns led to building an optimal EFL learning environment that would engage students willingly and show students positive attitudes toward learning English.
Conducting an Optimal EFL Cooperative Learning Community

The first step in this study involved introducing the concepts of a cooperative learning community into the EFL classroom that foster the development of an effective learning environment, including I, the teacher–researcher, holds a meeting with the students during the first class. During this meeting, the teacher explained the purpose of building a cooperative learning community as well as encouraging discourse so students understood they were not alone and were supported by a caring teacher. A cooperative learning community was developed in which students and the teacher were encouraged to work together to resolve difficulties while sharing appropriate language-learning experiences. In other words, the teacher divided students into groups for sharing responsibilities and contributing abilities to complete the tasks assigned by the teacher in their EFL classroom.

Next, the teacher considered motivational aspects when designing lesson plans. Therefore, the teacher should understand what the students’ hobbies are and incorporated them into the classroom (Alvermann, Hagood, Heron-Hruby, Hughes, Williams, & Yoon, J.-C., 2007) to raise students’ interest and motivate them to engage in active participation. This was important because motivation reinforces efficacious learning (Gan, 2004; R. C. Gardner’s, 1985a).

In a study on effective EFL lesson plans; Chau (2003) stressed the advantages of keeping the teaching material diverse; ensuring that the material is relevant to the students’ reality and interests, such as the panda issue and environmental awareness. At the time of this study, the panda has been a critical issue for the relationship between Taiwan and Chinese governments; moreover, the environmental awareness is
related to our daily lives. In addition, F.-C. Lin (2004) focuses on practicing “soft”
technical programs, for example, games, songs, and role-playing exercises; and
reducing pressure on students involved in the process of learning a new language. In
particular, one of my students told me he disliked attending English class because
routine tasks, such as reciting new words from memory and taking numerous tests,
regularly occurred. He did not have fun.

In fact, language learning should not focus only on vocabulary acquisition but
instead on knowing how to use the target language practically (Uzawa, 1997). One
can easily see that teachers themselves have created problems leading to an impasse
for students as they tried to motivate optimal learning performance (Verschure, 1999).
Teachers posing challenging and multifaceted problems to the class of student
inquirers might lead active participants. In M. Liu (2005) also demonstrated the
potential of the problem-based learning approach in his study on student motivation;
the teacher in Liu’s study created a problem-solving environment with a story entitled
“Alien Rescue” to help students gain critical thinking skills as well as the specific
knowledge necessary to complete their tasks. Similarly, W. A. Nelson (2003) referred
to the benefits of introducing a problem-solving approach to enhance cooperative
learning, and other studies suggested that this approach also promoted greater student
motivation in learning (Knuth & Peterson, 2003).

In other words, the learning community, cooperative learning instruction, and
problem-based learning environment are interrelated in a common expectation—
students’ learning. They share some commonalities: (a) Learning is student-centered;
(b) authentic problems stimulate the best learning; (c) learning occurs in small-group
activity; and (d) a teacher acts as a facilitator.
The teacher’s task is to integrate cooperative learning, the learning community, and problem-based learning environment in the classroom. These learning approaches can be applied among students involved in dialogue with the teacher or participating in group discussions among peers in the EFL learning environment in an effort to help them achieve the goal of improved English-language communication (Dulay, Burt, & Krashen, 1982). In the course of this study, the researcher built a cooperative learning community to increase motivation and confidence for low achievers in their language-learning journeys.

Research Questions

In order to explore in depth the nature of the EFL teacher able to create a cooperative learning community for EFL learning for low-achieving students, the following questions guided this researcher and provided a framework for the investigation:

1. How will the group investigation (GI) model under the cooperative learning instruction in the EFL classroom help a teacher–researcher to motivate the low-achieving vocational high school students to learn English in Taiwan?
2. What can this teacher–researcher learn from implementing the GI model under the cooperative learning instruction that will improve EFL teaching for the students of the vocational high school in Taiwan?

Definition of Terms

For the purpose of the study, the following definitions apply:

*Action research.* Action research is a reflective process of attempting to solve educational problems and make improvements (Tomal, 2003). For teachers, integrating action research into the classroom helps them to understand their own
concerns, explore the context of the problems in their teaching by practicing reflection, action, and observation of cyclical processes (Holly, Arhar, & Kasten, 2009) until they arrive at solutions to improve classroom practice.

Low-achieving language learners. Generally speaking, the Taiwanese students enrolling in the private vocational high school have presented mostly lower academic performance in their Basic Competence Junior High School Entrance Examination (BCT), after entering high school (K.-P. Chen, 2005). In this study, the students were considered low-achievers in English by the researcher based on their low scores on the BCT, which is administered by Taiwan’s Ministry of Education. Participants in the study were labeled low-achievers in English if their average BCT scores were only 11 out of 60 points, that is, lower than W.-C. Chang’s study (2006) of 15 out of 60 points.

Test of English for International Communication (TOEIC). Developed by the Educational Testing Service (ETS) in USA, the TOEIC test is an English language proficiency test for people whose native language is not English. TOEIC scores indicate how well people can communicate in English with others in the global workplace. TOEIC is a paper-and-pencil examination with a highest scaled score of 990. TOEIC consists of two sections: listening comprehension and reading (“Test of English for International Communication”).

Test of English as a Foreign Language (TOEFL). Developed by the Educational Testing Service (ETS), the TOEFL test measures how well people can read, listen, speak, and write in English and suggests how well the learners will use the combined skills in the university setting. If people are planning to study abroad, the TOEFL test is used for college admission. The TOEFL is a paper-and-pencil test with a highest score of 677. TOEFL consists of two sections: listening comprehension
and reading (“Test of English as a Foreign Language”).

*The division of English achievement.* According to a statistical analysis from 2002 to 2008, the English achievement of large numbers of Taiwanese students fell into the highest- and lowest-score areas, creating a gap, leaving only a few of the students in the middle scoring area. This division of English achievement is based on the College Entrance Examination from 2002 to 2008 (C.-C. Lee, 2008). In other words, a large discrepancy in Taiwanese students’ English achievement exists between high- and low-achievers.

*English as a Second Language (ESL).* People whose mother tongue is not English learn English as a second language if they study English in an English-speaking country, for example, Taiwanese students in America learning English (H. D. Brown, 2000).

*English as a Foreign Language (EFL).* English learned in a country where it is not the primary language (e.g., Japan, Taiwan) (H. D. Brown, 2000).

*Basic Competence Test (BCT).* The Basic Competence Joint Junior High School Examination is administered by Taiwan’s Ministry of Education. It was designed to evaluate junior high school students’ academic comprehension and serves as the basis for admission to high school or vocational high school. Five subjects are featured on the BCT, including Chinese, English, mathematics, social studies, and natural sciences. The maximum score attainable in the area of English is 60 points.

*Technology Vocational Examination (TVE).* The Technology Vocational Education Joint College Entrance Examination is administered by Taiwan’s Ministry of Education. Designed to evaluate vocational high school students’ academic comprehension, it serves as the basis for admission to vocational high school. Five
subjects are featured on the TVE, including Chinese, English, mathematics, and two professional subjects, such as hospitality and tourism management for culinary arts majors. The maximum score attainable in the area of English is 100 points.

*Cooperative learning.* A pedagogical practice in which students work in groups toward a common academic goal. Once cooperative learning is established in the classroom, every group member has the opportunity to contribute his or her ideas and positively participate in decision-making for completing tasks (Johnson & Johnson, 1994). In this study, the cooperative leaning instruction was constructed by the teacher designing language-learning tasks following the four components of group investigation (GI) model (Sharan & Sharan, 1992)—investigation, interaction, interpretation, and intrinsic motivation for motivating students to participate in small group work.

*EFL classroom learning community.* In an EFL classroom learning community groups of members actively participate in dialogue and operate with the following in place: (a) curriculum considerations in which H. Gardner’s (1993) theory of multiple intelligences (MI) was applied in order to achieve maximal potential; (b) curriculum also has been developed with an emphasis on cooperative problem-solving activities and included the group investigation (GI) model (Sharan & Sharan) to enhance learning, inspire motivation, challenge thinking, and facilitate social skills through group discussion and other interaction that enhances language-learning performance. Finally, (c) affective considerations in which a caring teacher supports individual competence in a secure, low-anxiety EFL classroom environment (Krashen, 1981), allowing all students to feel respected, less afraid to make mistakes, and free to exchange that contributed to academic development.
Group investigation (GI). Group investigation (GI) is one of the cooperative learning methods. The group investigation model was elaborated by Herbert Thelen (Thelen, 1981) and extended by Sharan and Sharan (1992) to develop cooperative classrooms. First, students work in small groups to explore inquiry questions. Then, the group members collaborate and solve the problem by group discussion and investigation until it is clarified. Lastly, group members make presentations to display their findings on their projects cooperatively. Summing up, four components maintain the group investigation model: investigation, interaction, interpretation, and realization of the expectation of arousing learners’ intrinsic motivation.

Motivation: Motivation is a feeling that drives someone to take action toward desired goals. According to R. C. Gardner’s (1985a) theory of second-language learning motivation, a person with a high motivation to learn a language will display positive attitude and put effort into learning because of a desire to do so. Students actively engaged showed fewer avoiding behaviors, such as sleeping, playing MP3, or working on off-task assignments in an EFL classroom, which represented that they are more engaged and their behaviors shows some motivation.

Significance of the Study

Three issues underscore the significance of this study. In Taiwan, many students who had been labeled low achievers have typically felt neglected by teachers in schools and in the educational system itself (Sue, 2004). In particular vocational high school students have been frustrated in their past English performance because of the reduction in hours per week devoted to English instruction (Shua, 1990). In addition researchers have paid less attention to vocational high school students than mainstream high school (Shih, 2005; Sue) because at the time of the study, passing the
College Entrance Examination was still important in Taiwanese society which most high school students will take in the future. Noddings (1992) cited Hutchins and Alder, who said, “The best education for the best is the best education for all” (p. 163).

Long ago in fact Confucius asserted the need to disregard all distinctions among students when we teach (Lau, 1979). This study addressed suggestions raised by G.-T. Lee (2004) in “Rescuing English Education in Taiwan” in which educators and teachers encouraged the rethinking of what makes an effective English learning environment, especially for low-achieving language learners. In summary, a successful education not only helps good students grow but also motivates low achievers to improve their language-learning attitudes.

Second, G.-T. Lee (2004) called upon Taiwanese teachers to teach introductory basic English with step-by-step instruction to establish students’ confidence instead of frustrating them with the analysis of difficult grammatical structures. Over one third of Taiwanese students received a score of zero on the College Entrance Examination for high school on the Chinese–English translation questions and English composition (‘One Third of High School Students,’’ 2005). Teaching the basic English sentence in a practical way is a matter of great urgency so that students can enhance their knowledge and acquired skills in English through a step-by-step approach.

Third, little research is available on the manner in which the EFL teacher develops an appropriate pedagogy of EFL learning—group investigation under cooperative learning instruction in low-achieving vocational high school students in Taiwan. In an effort to build on the small body of existing research, the researcher explores the nature of learning among low achievers by applying small-group learning for a problem-solving approach as well as affective considerations, such as the
support of a patient, caring teacher with a firm belief in expectations for students. In addition the researcher specifically examines the work of the cooperative EFL classroom learning community by observing and analyzing students’ classroom interaction and listening to student feedback in order to make prudent decisions during the action research study process.

Finally, the results of this study should (a) help students recognize that they are valued learners with the potential to find their own way to success in learning a new language, (b) encourage teachers who were struggling to improve EFL students’ attitudes and motivation to learn and realized that we can contribute to these changes, (c) and provide EFL teachers with insight about English curriculum in the context of vocational high school in Taiwan.

Rationale for Implementing Action Research

The controversial issues discussed above captivated the researcher’s interest as a language teacher and educational researcher—roles that would be effectively synthesized in the context of this action research. This study not only positioned the researcher to analyze students’ responses but also to reflect on her own teaching in the EFL classroom. In the course of this study, which connected constructivist theory in learning and teaching, students were expected to become independent learners, to express themselves more freely, and to take responsibility for their actions. Meanwhile, the researcher cooperation with colleagues and students alike stimulated personal growth and professional development. Specifically, these research experiences enabled the researcher to enhance effectiveness in applying a problem-solving approach in the context of the classroom.

As a language teacher, the researcher, I was concerned about how my teaching
motivated my students to learn English and whether or not students recognized that they were capable and had the potential to learning English effectively but might need time, patience, and guidance from the teacher. The action research routine presents a continuously transforming “spiral of spirals or a cycle of cycles” (McNiff, et al., 1996, p. 23.) to identify and undertake some initial actions, such as to know who my students are and how they think about English as a subject and their personal experience in learning English. After clarifying above facts, the teacher–researcher could develop a viable plan of action, observation, and reflection (Arhar, Holly, & Kasten, 2001; Holly, et al. 2009), leading me to clear insights into the solution to my problem. Therefore, I need the action research model to solve the problem which was happening in my EFL classroom.

Chapter Summary

Educators in the field of EFL in Taiwan have generally faced two challenges: how to promote competence among all students and how to reduce the gap between high and low achievers in the academic area of English performance. In the current study, an action research methodology provided an opportunity for the teacher to function as researcher by examining her concerns through a cyclical process that involved observation, action, and reflection. The teacher was positioned to make changes in the situation. Such changes were based on findings that suggested more effective methods to promote the motivation of low-achieving language learners while facilitating teacher development. This study demonstrates some of the benefits of establishing an EFL classroom learning community featuring problem-solving strategies and harmonious teacher–student relationships. These benefits include the creation of a student-centered classroom environment, where students are able to
improve their motivation and participate positively in the English classroom.
CHAPTER II

REVIEW OF THE LITERATURE

Introduction

The conceptual framework used in this study derived from constructivist theory on learning and teaching. First, the notion of the EFL classroom learning community entails practicing the ideal of learning as a social process (Windschitl, 2002) and emphasizes interactive and cooperative team work among learners with their peers and their teacher for problem solving.

Moss (1975) studied the development of critical reflection in learners in college composition courses. In his writing course, students were required to participate in and explore related issues and problems that concerned them and happened in their community. First, students chose topics by building groups of learners deliberating a problem. They expressed personal ideas, analyzed the situation at hand, searched for possible information to solve this problem, and finally identified the best outcome. Ultimately, the individual learners became critical thinkers with different perspectives to express their thoughts in writing. This study focused on the classroom learning community as a place where teachers and students cooperated in meaningful learning activities for solving their problems in order to build an optimal learning climate. Second, the conceptual framework was furthermore based on our predecessors’ pedagogical philosophies, which informed innovative curricula and learning environments for successful teaching and maximum learning. Thus, this chapter contains five major sections: (a) a broad introduction to constructivist theory in learning and teaching; (b) a dialogue with our predecessors: Confucius, Socrates, Dewey, and Vygotsky; (c) a description of cooperative learning and its contributions
to teachers and students; (d) an exploration of motivation for foreign language learning; and (e) a description of a caring classroom climate resulting from the teacher’s understanding of students’ individual needs and viewing their learning as uniquely individualistic.

Constructivism

Many current research studies on teaching and learning approaches have focused on learners’ points of view (A. D. Cohen, 2003; Dodge & Kendall, 2004; Edstrom, 2003; Levine, 2004; McKibben, 2004; Mitra, 2004), indicating that student-centered learning, active learning, cooperative learning, and inquiry-dominant learning have been embraced in classroom practice (Freeman & Freeman, 1998). Student-centered curricula derived from constructivist theory, which emphasizes the need for students to engage in the active construction of their own knowledge (Williams & Sternberg, 1993) as well as student autonomy (H. D. Brown, 2001). Spivey (1997) described the constructivist notion of the developmental process of learning in terms of individual involvement in interactive discourse, cooperative group learning, context-rich activities, and social experiences. Finally, the individual constructs her or his new knowledge using strong interpersonal skills, and the result is maximum learning (Noddings, 1992).

Moshman (1982) divided constructivism into three categories. Endogenous constructivism, which emphasizes knowledge acquisition based on the learners’ early mental structure of prior knowledge or experience to develop or construct new knowledge, is associated with Piaget’s cognitive development theory. The teacher practicing endogenous constructivism acts as a facilitator or guide to provide experiences that result in the stimulation of learners’ thinking and existing models.
Exogenous constructivism involves external information processing while stimulating learners to construct their own knowledge actively. The role of a teacher is to teach effective learning strategies or skills to correct or change learners’ misconceptions. Dialectical constructivism emphasizes learning or knowledge acquisition taking place within the sociocultural context through interaction with other students, adults, and experts. In order for the teacher to develop dialectical constructivism in the classroom, she or he must infuse exploratory talk into the curriculum so that both teacher and learners experience powerful learning and construct their knowledge (Hyun, 2006). Vygotsky’s perspective resembles the principle of dialectical constructivism.

Practicing the ideal of constructivism in school settings is difficult and challenging as indicated in Windschitl’s (2002) study on the dilemmas facing teachers who want to implement it. In conceptual dilemmas a teacher may wonder whether all activities result in new knowledge constructed by students. In pedagogical dilemmas a teacher may consider the skills and strategies necessary to develop in the classroom. In political dilemmas he or she may ask how to gain support from school administrators or parents for this unfamiliar teaching approach. Research has also indicated that the teacher’s belief in practicing constructivist pedagogy in the classroom enhances student confidence in learning when the approach is applied. Chiu, Wang, Chang, and Chen (2005) conducted a study on a computer-assisted constructivist learning system for a group of Taiwanese elementary students and found that they became more creative and knew how to operate the computer very well during the learning process. Hsu’s (2004) study illustrated the effects of the application of constructivism in English instruction with a total of 75 seventh graders in Taiwan. C.-L. Lin’s (2002) study also presented the benefit of integrating
constructivist instruction into second-language learning in a Web-based reading and writing activity. He found that most students in the study were satisfied with the development of their English abilities as well as their learning achievement. Furthermore, when teachers themselves are stimulated in a learning environment where constructivist instructional methods are modeled and implemented, student achievement and performance increases.

In this vein, constructivists believe the role of teachers is to stimulate student learning (Good & Brophy, 1997) through the practice of approaches from the inquiry, discovery, and problem-solving domains (Brooks, 1990) with affective considerations factored into the process. According to Rogers’ (1983) theory of humanistic psychology, as long as teachers present an optimal learning context with affective considerations, such as trust, acceptance, and prizing students as worthy and valuable people, then learning will occur naturally.

Noddings is well-known for developing the ethics of caring in education. She clarified the notion of caring as a critical pedagogy and applied it to curriculum for a democratic society. In planning a caring curriculum, Noddings emphasized building a harmonious relationship between students and teachers in order to develop students’ faithfulness; this can be accomplished when teachers convey their deepest caring and love for learners. She also claimed, moreover, that education develops students’ sense of belonging to someone or something by enhancing the connection they feel to plants, animals, even furniture on campus (1992). In “What Does It Mean to Educate the Whole Child?” Noddings (2005) affirmed that schooling extends beyond teaching fundamental skills, such as reading and mathematics, and evaluating students through standardized tests. In her pedagogy of caring, she suggested a math teacher could
discuss Descartes’ proof of God’s existence or read a biographical story about a mathematician. In other words, teachers deliver a caring curriculum to foster students’ becoming moral and responsible citizens with broad perspectives and global awareness in a democratic society.

C.-L. Lin’s study (2002) also confirmed that an effective learning environment derives not only from integrating modern instructional technology into curriculum but also from delivering love and care that inspires students’ learning attitudes and motivations. G. Lee (2007) in her study also revealed that students are inspired and willing to develop their writing, especially when they receive their teacher’s encouraging and supportive written feedback to their writing assignment. She also defined caring as an instinct, an interaction, a two-way behavior, and an explored action; therefore, a teacher should be a friend who understands and accepts students’ ideas and also facilitates their needs. In other words teachers develop close relationships with students, encouraging them with kindness and the knowledge that their care can promote effective learning.

From East to West: An Overview of Our Predecessors’ Pedagogy

The idea of learning community derives most immediately from John Dewey (Gabelnick et al., 1990) but extends back to Confucius and Socrates. In fact Eastern and Western educators share common educational principles and pedagogy. The ultimate aim of education is the development of moral people as well as harmonious nations and societies. Applying the metaphor of soil in which a flower blooms and flourishes to the powerful mission of education, C.-C. Lee (2001) stated that education is vital to a nation and that the teacher is a key medium to develop students’ intelligence and lead students toward self-actualization and morality. In the following
section, the researcher has presented a brief overview of the pedagogy of Eastern and Western educators as it relates to the learning community in contemporary practice.

*Dialogue with Confucius*

The great Chinese thinker and educator Confucius based his pedagogy on the principle that class distinction must be erased when we teach. He believed that teachers must focus on individual capabilities and apply theory in concert with students’ real-world experience. Confucius also believed in helping students to develop positive attitudes toward learning without spoon-feeding them (Legge, 1861/1966); thus dialogue and discourse were essential in his teaching. Open-ended dialogue and discourse were adapted in Confucius’ educational philosophy as well. A dialogue between Confucius and one of his talented students Zi Gong can clarify.

Zi Gong asked: “What kind of person am I?”

The Master said: “You are a vessel.”

Zi Gong asked again: “What kind of vessel am I?”

The Master said: “You are a jade sacrifice vessel with talent to develop your potential.” (Legge)

Confucius considered individual students’ capable of learning with open-ended dialogue and guidance to develop their own learning potential. His teaching philosophy informed me and inspired me to build a cooperative learning community in an EFL classroom for low-achieving vocational high school students in Taiwan.

*Dialogue with Socrates*

Socrates based his teaching approach on the question followed by thoughtful discussion to search for knowledge. His concept of the dialogue has inspired teachers
throughout history to engage in active questioning. The three stages in his process of discussion include elenchnus, mental midwifery, and tethering (Palmer, Bresler, & Cooper, 2001). In other words a teacher’s role is like that of the midwife; the teacher helps students activate their thinking capacities by conducting an inquiry into the truth. Socrates’ concept of learning focused on what we already know by integrating our previous background experience to develop comprehensible knowledge. Thus, teachers may give students a suitable and ambitious problem, which they may encounter in everyday life, to inspire them to search, analyze, and explain a problem and to become skillful problem solvers. In this vein, students can construct their own knowledge and make it permanent. K.-H. Wang (1997) used a web-based recursive programming system accompanied with Socratic dialogue as a guide to evaluate students’ learning performance. His experiment involved (a) Socratic dialogue and a cooperative learning approach with an experimental group and (b) self-study without discussion with a control group. He found that the low-ability students using Socratic–cooperative learning achieve more than those engaging in self-study.

Learning cannot occur as a result of simply telling students the standard solution or answer; we call this spoon-feeding. Instead, students must consider the mistakes and contradictions they discover during the learning process; in this way learning becomes more effective. This was what the researcher wanted to accomplish by building a learning community for EFL students.

**Dialogue with Dewey**

John Dewey, a famous 20th-century American educator, captured the attention of teachers. The five steps in *How We Think* (Dewey, 1910) clarified the features of experimental theory.

1. Discover the difficulty. Obstacles encountered in people’s daily lives can
motivate them to solve the problem.

2. Identify the difficulty. When we encounter difficulty, we have to recognize what the real problem is by analyzing, synthesizing, and exploring the real issue.

3. Advance a hypothesis. Once we know the problem, we have to propose possible solutions.

4. Develop a reasonable deduction. We have to confirm this hypothesis by analyzing, synthesizing, organizing, and finally identifying our deduction in order to find out the best solution.

5. Confirm ideas. Prove the effectiveness of the solution to the problem with further observation and experiment, which could lead to accepting or rejecting the suggestion.

John Dewey also insisted that education should combine students’ personal interests and social experiences (Palmer et al., 2001). In other words, learning occurs by doing (Luchene, 2004). The teacher’s obligation extends beyond developing appropriate curricula and delivering of knowledge that integrates learning with experience in order to create opportunities for student inquiry during the learning process. Dewey’s educational philosophy emphasizes knowledge as acquired by action, experiment, and social experience; this is what the researcher hoped to implement in her cooperative learning community based in problem-solving in an EFL classroom.

Dialogue with Vygotsky

In Thought and Language Russian psychologist Lev Vygotsky contended that the development of thinking does not originate within the isolated individual but
instead in the context of social interaction (Kozulin, 1986). In one of his most significant theories, the zone of proximal development (ZPD), Vygotsky asserted that cognitive skills and intellectual development occurs through interaction with mentors and cooperation with peers such as teachers, parents, and friends. In other words, learning is facilitated in a primarily social context, which suggests that teachers should design curricula in ways that emphasize interaction among students and involve cooperative activities.

During a 1994 Moscow-based international conference on Vygotsky and contemporary human sciences, Holzman (1995) observed four young presenters, who used their dramatic talents to showcase the process of learning-led development, demonstrating the effectiveness of a ZPD learning environment. To be more specific, from Vygotsky’s perspective, cooperative activities result in children’s growth as they operate in one another’s zones of proximal development and gain more advanced behaviors or knowledge in cooperative groups than students working individually. In summary, the acquisition of language and thinking develops in cooperative environments.

Contemporary educators must hold their own dialogues with interlocutors and actively question their teaching approaches, defining the teacher as follows: (a) inspired teacher (Confucius), (b) midwife (Socrates), (c) constructor (John Dewey), and (d) social-interactionist (Vygotsky). Significantly, our predecessors have already practiced education through student-centered learning (Freeman & Freeman, 1998), student autonomy (Gattegno, 1976), and student control of the learning process (Daigon, 1971; Hustler & Hodkinson, 1996). These ideas constitute the teaching rationale of constructivism, which helps learners construct new knowledge and make
Taking the constructive–developmental theory into the classroom helps teachers recognize how people learn, how teachers effectively design programs, and how teachers create classroom environments to support effective learning. Moreover, teachers sense how the creation of a cooperative learning community helps students to develop in ways that are amenable to constructivist theory. In the following section the researcher has defined the learning community, outlined its essential features, and described some of its benefits and drawbacks.

The Sense of Learning Community

*The Definition of Learning Community*

In the *Random House Dictionary of the English Language*, *community* is defined as “the public, society, a group of members having a common culture and rule” (Stein & Urdang, 1966). Community has been viewed more broadly than merely a place, a group of people, or an organization (Palloff, 1996). The learning community has taken various forms, such as the online community (Shumar & Renninger, 2002), professional learning community (DuFour, 2004), reflective community (Martin-Kniep, 2004), and caring community (Harris, 2001; Morrison, 2002). In fact, all have been clearly linked to contemporary constructivist developmental theorists, who have advocated support and mutual partnerships for effective learning for all learners (Harada, Lum, & Souza, 2002).

*Essential Features of the Learning Community*

Four common features of a learning community must be considered in the development of curricula: (a) an emphasis on student involvement in the learning task that involves shaping the curriculum along lines of student interest (Orlovsky & Smith,
1978); (b) support for cooperative work in line with Vygotsky’s theory of the zone of proximal development (ZPD) that increases student confidence and encourages scaffolding instruction as when the teacher models the desired learning strategy or task, then gradually shifts responsibility to the students who work together with one another; (c) the incorporation of theme units into the curriculum, exemplified at Shoreline Community College, where English composition was integrated with coursework dealing with natural science, social science, and the vocations. Such linkage of coursework established the foundation of a learning community, given that instructors shared common syllabi, assignments, and meeting times in order to support theory connected to practical application courses (Gabelnick et al., 1990). Such thematic teaching not only stimulated students’ higher thinking skills (Kasten & Lolli, 1998), but it also improved teachers’ ability to identify individual students’ abilities, behavior, and learning styles. And finally, (d) the support of a caring teacher and a secure classroom environment are essential elements in the building of a cooperative learning classroom. Before proceeding, however, a clear conception of the nature of cooperative learning and collaborative learning is necessary.

Cooperative Learning and Collaborative Learning

According to a Chinese proverb, when I walk along with two others, they might serve me as my teachers. I select their good qualities and follow them, their bad qualities and avoid them. Learning cannot be optimally effective if it occurs without the processes of sharing and discussing with others. In fact, cooperative and collaborative learning approaches have been broadly adapted in Western countries and also been implemented in contemporary Taiwanese education (M.-W. Chen, 2004). The essential features of cooperative and collaborative learning appear below.
Differences Between Cooperative and Collaborative Learning

Cooperative learning is an educational technique that involves dividing students into small groups to allow them to work together to maximize learning (Johnson, Johnson, & Holubec, 1994). Cooperative learning provides teachers with opportunities to implement small-group techniques in daily teaching instruction in the classroom so that students operate face to face and learn to work as a team (Bejarano, 1994). Collaborative learning is a method of teaching and learning in which students work together in a group to explore a significant question or to practice a meaningful project. Students from different schools working together via the Internet on a shared assignment or project are an example of collaborative learning.

Student- vs. Teacher-Centered Classroom

In the collaborative learning environment, the teacher acts as facilitator; and students are expected to take responsibility for their own learning. Nokelainen, Miettinen, Kurhila, Floreen, and Tirri (2005) studied a shared document-based annotation tool to support the learner-centered collaborative learning approach. In their study the instructor gave an orientation to the topic through initial lectures and provided some information and sources for students to construct new knowledge. In contrast the cooperative learning approach is considered more a structured model by teachers, who closely monitor every stage in the completion of the task by students. Johnson and Johnson (1988) clarified the teacher’s role in cooperative learning, stating that a teacher typically introduces the lesson and assigns students to groups. A teacher delivers resources or information so students complete their tasks within the time limit and also build a well-arranged and comfortable climate during the process of working on the task. Of course, the teacher is available to predict the final
outcomes. In other words, the instructor possesses ownership and guides students during the learning process, practicing the teacher-centered principle.

Panitz (1996) also clarified the difference between collaborative and cooperative learning involving curriculum. He claimed that teachers adapt a collaborative learning approach for higher-level students instead of using a cooperative learning approach with first-stage learners. In other words, in a cooperative team, group members are given clear objectives and instructions by the teacher to show their abilities, reach desired goals, and run the task smoothly, especially for students without cooperative teamwork experience.

**Open-Ended Questions in Both Collaborative and Cooperative Learning**

Teachers may deliver an open-ended problem requiring critical or creative thinking so students developed intellectual skills. Maag and Fonteyn (2005) studied nursing students enrolled in Introduction to Pathophysiology, an undergraduate course in which the cooperative learning method was used to improve students’ writing skills. In this study the teacher posted only critical-thinking questions that students actively discussed and answered.

Staarman, Krol, and Meijden (2005) explored the achievement of students’ reading comprehension through teacher-posted higher-order questions that challenged students and asked for explanations on the question using cooperative learning principles. The learning task was conducted by the teacher, who delivered an unfinished story for which the students were to predict the ending. Students shared information, drew upon prior knowledge, and asked verification questions of one another in order to gain a complete picture and answer the questions. In fact, the teacher posted questions to draw students’ interests and motivate learning based on
the theory of constructivism and cooperative and collaborative learning principles integrated into the classroom; therefore, students applied critical thinking and communications skills to increase learning motivation and to develop academic knowledge so that learning and teaching became more effective to both students and teachers.

Problem-Solving Approach Maintains Both Collaborative and Cooperative Learning

Constructivists considered learning a social phenomenon; the cooperative learning method requires learners to develop teamwork skills, share responsibility, and make decisions while facing a problem to be solved. Research on motivating students through problem-based learning approaches has broadly explored and demonstrated its effect on learning. In the following section, problem-solving instruction and rewards have been illustrated.

Instruction in the cooperative problem-solving domain entails students working together, exercising curiosity about a question, making predictions, conducting research, reflecting on these processes, and finally making the right decision for solving the problem. In addition, problem-solving instructions have clear criteria that require learners to complete a specific task. The ultimate goal of problem-solving instruction is to facilitate learners’ cognitive and intellectual development (Eisner, 2002).

Zull (2002) noted that the power of the human brain is manifested through action that reinforces learning, such as note-taking, role-playing, and other activities related to problem-solving. In traditional forms of education, however, students are required to memorize material; but with the advent of the 21st century, educators shifted emphasis to developing knowledge that connects with real-life situations. The
problem-solving approach has inspired teachers to view themselves as “coaches” (p. 157), who support assistance and open dialogue with students, and to examine the quality of their instruction carefully (M. W. McLaughlin & Oberman, 1996). Nasatasi, Clements, and Battista (1990) produced evidence that cooperative problem-solving instruction increase students’ intrinsic motivation. In other words, students remain “on task” (even after encountering difficulty or failure), engage in independent work (without teacher direction), and experience pleasure upon discovering new solutions. Meanwhile, Nuessel and Cicogna (1994) conducted a study in an elementary and intermediate Italian classroom, where problem-solving techniques were used as a device for second-language vocabulary acquisition. They suggested that the problem-solving approach not only creates innovative and stimulating exercises for motivating students but also reinforces their acquisition of vocabulary.

*Heterogeneous Small Group*

To divide students into small groups is the common feature in both cooperative and collaborative learning. E. G. Cohen (1986) defined a heterogeneous group as one whose members have different genders, abilities, living environments, and social backgrounds. Students have increased opportunities to know one another, to share different point of views, to respect one another during discussion, to encourage and help one another; some members needing support or assistance learn from one another as well. We must make sure that cooperative teams are as small as possible so that every individual member of the group has a role to play and makes active contributions. Some empirical studies have illustrated the results of adopting the heterogeneous grouping approach. For instance, a study by Audickas, Davis, and Szczepanska (2006) on the effects of group cultural differences on task performance
and socialization behaviors showed that the heterogeneous group promote more social interaction, such as smiling, laughing, and animated dialogues. Investigating the way cultural dimensions and group composition influence communication behaviors in homogeneous and heterogeneous small-group meetings, Du-Babcock (2003) found that second language learners communicate easily in homogeneous group meetings with individuals who are also nonnative speakers of English, but they have less confidence speaking in heterogeneous group meetings. In *Differentiated Instruction in the English Classroom* Shaver-King and Hunter (2004) raised some concerns about grouping classes homogeneously or heterogeneously by ability levels; in such cases teachers should be flexible in adjusting the lesson for individual students’ needs to fulfill the expectation that all students learn at a very high level.

**Cooperative Learning**

*Feature of Cooperative Learning*

Cooperative learning groups are normally structured to be heterogeneous in terms of ability, race, ethnicity, and gender (Kalkowski, 1988). In these learning groups, students are encouraged to assist one another in their learning. Groups are typically as small as possible so that members make contributions to their group (Johnson & Johnson, 1994). In cooperative learning, students work together to achieve common instructional goals, and they receive rewards based on their efforts or good performance. Generally speaking, five major elements define cooperative learning and make it successful (Johnson et al., 1994). Of primary importance are cultivating positive interdependence skills by assigning roles to team members and setting a common goal for the groups to reach. Group members distribute shared information and also receive rewards through cooperative teamwork. Second,
engaging in face-to-face interactive discussion in learning is highly valuable because it allows students additional opportunities to communicate, negotiate, and draw a final conclusion. Third, fostering social skills, such as tolerance and respect, helps the group run smoothly and maintain good working relationships among peers. Fourth, group members must cultivate individual accountability. Making an active contribution to the group, each member feels in charge of herself or himself and the group members’ learning. Finally, cooperative learning allows students more chances to reflect upon their work. In other words, during group processing, discovering whether or not group members have done their best to contribute their knowable knowledge or efforts on the task is vital. Group outcomes improve if group members adjust their roles in appropriate ways to promote a positive learning environment, academic achievement, and good behavior. Consequently, reflecting on their own or other group members’ performances becomes a necessary procedure in cooperative teamwork.

Benefits of Infusing Cooperative Learning

Empirically, research into learning resulting from cooperative teamwork has revealed benefits. First, collaborative learning, cooperative learning, or the interconnectedness of the two concepts raises academic achievement and proves learning attitudes of low-achieving students. Nyian (2004) explored the effect of using cooperative learning for students in an accounting class in a vocational high school. She also found that cooperative learning can enhance learning attitudes, especially among students of middle and lower ability. Sachs, Candlin, Rose, and Shun (2003) investigated developing cooperative learning in a EFL/ESL secondary classroom in Hong Kong. Their research findings showed that both the high and
low-achieving learners present positive interactive behaviors in the language classroom and willingness to use the target language to communicate with others. They speculated that the low-achieving learners’ motivation did not change because the cooperative learning instruction was a new teaching approach. As a result, students had to adjust themselves to this new form of classroom learning. Moreover, low-achieving students experienced more difficulty making correct judgments and maintaining their own learning because they were unfamiliar with student-directed instruction, accustomed only to teacher-centered instruction.

Second, Haenen and Tuithof’s study (2008) explored the way a history teacher incorporated cooperative learning and enabled more student involvement in their classrooms. They clearly delivered eight cooperative learning steps, such as pair work, brainstorming, think-pair-share, word webbing, three-step interview, placement, jigsaw, and simultaneous sharing, for students to follow so that less chatting but more positive help occurred among them in their work processes. According to the results of the research conducted by Arslan, Bora, and Samanci, (2006), the cooperative learning approach facilitates students’ taking part actively in class because when learning with peers, interaction and discussion have absolutely positive effects on the performance of students.

In summary, cooperative learning has a powerful effect on learners’ academic development (Gabelnick et al., 1990; Ghaith, 2003) and emotional stability (Smith, MacGregor, Matthews, & Gabelnick, 2004), increasing student retention rates (Gabelnick et al., 1990; Mlynarczyk & Babbitt, 2002). Furthermore, cooperative learning breaks the isolation of the education culture (Schmoker, 2004), opening up a new dialogue in a reflective environment (Martin-Kniep, 2004) for group members
working together toward common goals, “shar[ing] a variety of perspectives, values, and lifestyles” (Graves, 1992, p. 94). Harada et al. (2002) confirmed the advantage of building cooperative learning: “Working as a team relieved stress. . . . Having someone to share the ups and downs helped to keep us sane and motivated” (p. 71). The cooperative community also facilitates the exchange of ideas, encourages problem-solving skills (Dodge & Kendall, 2004), and helps group members become autonomous, interdependent learners (Smith et al., 2004). In other words, cooperative learning increases students’ learning motivation.

**Drawbacks of Infusing Cooperative Learning**

Although the infusion of cooperative learning approach into the classroom has promoted positive learning attitudes, academic performance, social interaction, and motivation in low achievers (C.-C. Chang, 2005), not all students gain the same benefits from cooperative learning. First, M.-H. Shao (2005) investigated the effectiveness of ability grouping in an EFL cooperative learning classroom, finding that high achievers prefer individual learning over cooperative learning because high achievers are often expected to serve as peer–tutors, repeatedly explaining the same content to low achievers. These redundant explanations can frustrate high achievers and stifle their learning. However, Tan, Lee, and Sharan (2007) studied 241 eighth-grade students and found that the cooperative learning instruction, in particular, the group investigation method, improves high-achieving students’ motivation to learn, the opposite of the findings for low-achieving students.

Second, the freeloader among teammates is another problem in cooperative teamwork according to M.-W. Chen’s study (2004). Some students in that study complained that some group members who ignored their roles in small groups carried
on irrelevant discussion during group work. This situation not only frustrated other teammates’ learning but also negatively influenced the effects of cooperative learning; therefore, when teachers divide students into small groups, they should take into account not only the learners’ academic performance but also individual differences in motivation, learning styles, learning speed, learning strategies, English learning experiences, and even students’ personalities. Furthermore, teachers should keep the group size as small as possible, perhaps four per group, in order to increase interaction and positive engagement in roles.

Third, irrelevant chatter during the group process can produce annoying noise that affects classroom management. To engage group members in on-task dialogue during group discussion, teachers should design challenging cooperative learning activities to arouse student interest, motivation, and participation so that they work on their tasks with positive results; integrating computer technology into classroom that can facilitate desired results. Furthermore, the teaching goal should not be limited to basic ability acquisition, such as the ability to read and write English; other skills like drawing, singing, oral performance, and computer skills should also be considered. Kohn (1991) asserted that a cooperative learning environment should be structured carefully by delivering challenging learning tasks so that group members learn to make decisions about how they perform those tasks as well as the value of helping one another through teamwork.

Within a cooperative learning classroom the teacher should increase students’ intrinsic motivation by identifying inquiry questions and giving clear guidance for learners who lack cooperative teamwork experience (Sharan & Sharan, 1992). To bolster EFL learners’ intrinsic motivation, the teacher might begin by structuring
cooperative learning activities into the curriculum. For instance, the teacher might divide the class into small groups and allow group members to take responsibility for one another’s learning (Slavin, 1983). Teachers should also point to multifaceted problems, which relate to students’ interests and abilities and teachers’ teaching goals (Sharan & Sharan). A rubric is also a good tool for guiding the learning process and for assessing final works (Andrade, 2001). After all, once EFL learners understand their individual responsibilities within the cooperative learning setting, they increase their intrinsic motivation, and collaborative learning behavior emerges. In the foregoing section I discussed the principles of cooperative learning, including its benefits or drawbacks. In the next section, I have presented three cooperative learning methods, including student team–achievement divisions (STAD), learning together (LT), and group investigation (GI). The reason I have selected GI for the present study has been explained as well.

Methods of Cooperative Learning

Studies conducted in Taiwan have revealed that the most popularly used methods in cooperative learning in EFL high school in Taiwan were first, the student teams–achievement divisions (STAD), followed by learning together (LT) (C.-C. Chang, 2005; K.-P. Chen, 2005; L.-H. Chen, 2002; H.-L. Liu, 2004).

Student teams–achievement divisions (STAD). Slavin (1991) and his colleagues at Johns Hopkins University developed STAD. The main features of STAD practice in the classrooms include (a) teachers presenting information, (b) teachers dividing students into small heterogeneous groups, (c) teammates practicing group discussion, (d) teachers administering an individual quiz containing some content-relevant questions, and (e) teachers evaluating the group scores and rewarding the winning
group. In other words, STAD emphasizes the feedback teachers receive from giving students’ individual quizzes after acquiring the material taught in the lesson. Team rewards may be given to students well prepared for their quizzes and adding to their teams’ scores. Reward is the key to motivating students to do their best to master material in the STAD method.

*Learning together (LT).* Learning together was developed by David Johnson and Roger Johnson (1994); guidelines for its use in classroom practice follow (Johnson et al., 1994; Slavin, 1983):

1. The teacher divides students into groups and assigns roles to group members, such as the leader, reporter, recorder, timer, observer, material manager, checker, encourager, and monitor, etc.

2. Group members distribute or share materials or resources in order to complete a task.

3. A common group goal requires goal-setting by group members.

4. Group rewards are structured to enhance positive interdependence among teammates and promote motivation to learn.

*Group investigation (GI).* Group investigation (GI) was elaborated by Herbert Thelen (Thelen, 1981) and extended by Sharan and Sharan (1992) to develop the cooperative classroom. Its four components are investigation, interaction, interpretation, and intrinsic motivation. First, investigation entails the teacher presenting challenging, open-ended questions to the students for inquiry. Good inquiry questions begin with phrases like *what if, what would happen if, how might it be*, instead of *what, when, where*, which result in one-word answers. The teacher must develop higher-order thinking skills through inquiry. Second, interaction involves
students actively answering or solving the problem through group discussion once they have clarified the question or problem posed by the teacher. If teammates can cooperate in their thinking and discussion, the results are often better than if students work individually. From this vantage point, students construct their new knowledge based on Moshman’s (1982) dialectical constructivism and Vygotsky’s (1930/1978) notion that learning occurs within social interaction. Third, in interpretation the students work on their inquiry, seek out new information from a variety of resources in order to consolidate ideas, and make sense of their findings. In fact, the GI method focuses on the teacher’s clarifying inquiry questions, which relate with students’ interests, experiences, and curiosity. Once motivated, students actively engage in learning. This is also the last goal of GI: To spark students’ intrinsic motivation.

Researchers have found that all three cooperative learning methods—STAD, LT, and GI—are popular with participants. STAD is the most commonly selected teaching style among cooperative learning methods. In fact, the teacher who plans to use cooperative learning methods for the first time may find it helpful. Notably, using rewards to increase students’ motivation to learn is the key point in STAD; however, the current study emphasized students’ intrinsic motivation more than external pressure to promote motivation.

In contrast with LT, in order to run a cooperative learning classroom smoothly and maintain classroom management, the teacher may assign roles like the leader, reporter, recorder, timer, and observer to enhance individual accountability when working in groups; this technique was integrated into this study. Because GI emphasizes increasing students’ intrinsic motivation through the teacher’s questions for inquiry and also creates opportunities and an environment to develop
interdependence when students work together, the researcher chose GI as one plank in the cooperative learning framework of this study.

Although the concept of cooperative learning has long been popular in the ESL context, it has only recently gained a foothold in the area of EFL, necessitating a close analysis of some of the major challenges facing EFL teachers in their efforts to bolster levels of student motivation, which is after all a major factor in the successful acquisition of foreign-language skills (Oxford & Shearin, 1994). Various types of motivation have been widely explored, but the most frequently cited theory of motivation cannot be ignored — Maslow’s hierarchy of human needs.

Maslow’s Hierarchy of Needs: Motivational Personality Development

The widely influential humanist psychologist Abraham Maslow explored the relationship between motivation and personality development. Maslow’s (1970) hierarchy of needs was divided into five layers. The first or bottom layer includes physiological needs, and the second layer comprises the need for safety and security. At the third level of Maslow’s hierarchy is the need for love and belonging, followed by the fourth-level, the need for esteem. At the top or fifth level is the need for self-actualization. Maslow contended that individuals will not pursue so-called “higher” needs until basic needs are fulfilled and satisfied. A student, for instance, who finds the study of English a frustrating experience, is unlikely to view the classroom as a secure and welcoming environment. Nevertheless, a teacher’s solicitous behavior can help to create a caring environment in which students are more likely to meet their basic emotional needs and move on to the higher needs reflected in academic achievement.

An exploration of Maslow’s (1970) hierarchy of human needs reveals that
motivation is one of the primary determining factors in classroom success. R. C. Gardner (1985a) noted, “Attitude and motivation are important because they determine the extent to which the individual will actively involve themselves in learning the language” (p. 56). For the purpose of this study on student motivation in an EFL classroom learning community, various definitions of motivation have been outlined in the following section.

**Motivation**

Definition of Motivation

Borich (1992) stated, “Motivation is a word used to describe what energizes or directs a learner’s attention, emotions, and activity” (p. 344). Keller (1983) clarified four components of motivation—interest, relevance, expectancy, and outcomes in the educational theory of motivation. He cited “the choices people make as to what experiences or goals they will approach or avoid and the degree of effort they will exert in that respect” (p. 389). H. D. Brown (1994) defined motivation as “the extent to which you make choices about goals to pursue and the effort you will devote to that pursuit” (p.34). Dörnyei (2001) defined motivation in terms of the direction and magnitude of human behavior. . . . In other words motivation is responsible for people’s decisions, how long they are willing to sustain the activity, and how hard they are going to pursue it. (p. 8)

In fact, motivation has been considered one of the influential factors in second-language (L2) or foreign-language (FL) learning. In other words, attitudinal and motivational factors correlate with L2 or FL learning and thus deserve further discussion.
Language Learning Motivation

Another well-known concept partitioned motivation into intrinsic and extrinsic types: Deci and Ryan (1985) stated that people who are intrinsically motivated pursue given tasks for the sake of personal interest, satisfaction, and curiosity, not external pressure. Conversely, people who are extrinsically motivated pursue tasks for reasons that do not involve personal interest (p. 35); rewards and punishments can serve as stimuli for motivation in the process of completing a task. Psychologists have tended to divide motivation into two basic categories: expectation and value. Feather (1982) divided student motivation into expectancy and value models in a study of reading instruction in second-language education. In the expectation model, he explained, students are motivated to complete a task because of desired goals. By contrast the value model suggests that students tend to do (or not do) things because they evaluate the task as either valuable or without value. Furthermore, R. C. Gardner and Lambert (1972) distinguished between instrumental motivation (e.g., motivation inspired by the prospect of a new job or a promotion) and integrative motivation (e.g., motivation that is self-initiated) in examining learners’ behaviors and attitude performances.

R. C. Gardner (1985a) defined motivation to learn the second language (L2) or the foreign language (FL) as the extent to which the individual works or strives to learn the language because of a desire to do so and the satisfaction experienced in this activity. Three components constitute this scholar’s definition of language-learning motivation: (a) making an effort to achieve a goal, which means motivational intensity, (b) the desire to learn the language, and (c) satisfying the task of learning the language.

According to Cambourne’s (1988) model of learning, he considered that
learning is an engagement behavior through immersion, demonstration, expectations, responsibility, approximations, use, and response for learning development. Applying Cambourne’s model of learning to the EFL classroom, we can illustrate them in the following conditions.

In the *immersion* condition, teachers should create an EFL classroom in which a variety of English media are ready and prepared so that learners can see, touch, feel, and experience them. That means that students are living in the English-speaking environment which is built by the EFL teachers. In the *demonstrations* condition, it seems that teachers use scaffolding to *engage* students in learning development. For instance, once students understand how a reading task is done by observing teachers’ demonstrations, such as using in variety of “skim”, “scan”, and “context clues” approaches for an unfamiliar word before reaching for the dictionary, students will be able to *use* those developing skills when reading to comprehend by themselves. In the *expectations* condition, teachers should give positive expectations and *responses* to the students so that they are not afraid to make mistakes but are willing to challenge them until the *approximation* errors begin to decline and to take *responsibility* for their own learning. Once students are immersed in this model of classroom learning, they will engage in learning development.

*The Correlation Between Language Learning Achievement And Motivation*

A series of studies have been conducted to investigate the role of motivation in FL learning in Taiwan. For instance, C.-L. Wang, (2005), studied 33 eighth graders, exploring the effects of learning motivation in the EFL classroom and finding a significant correlation between motivation and achievement. C.-L. Chen’s (2005) study of 762 students from eight junior high schools in the Yunlin region of Taiwan
revealed that school type, gender, the number of years of learning English affect students’ motivation to learn. Liao (2000) administered three questionnaires to eighth graders at a junior high school in central Taiwan, discovering that they lacked the motivation to learn English and tended to be extrinsically motivated. In actuality intrinsic motivation is the major factor in successful learning and inspires students to accomplish long-term learning goals. Ironically, Taiwanese students tend to learn English because they want to compete with others or pass the Joint Entrance Examination.

S.-C. Chu et al. (1997) studied the attitudes of unmotivated students attending an EFL class in a 5-year college in Taiwan, finding that 75.3% of the students felt bored in EFL class; 73.5% students considered the English textbook too difficult, impractical, and unattractive. Over half these students, 56.4%, complained of too many paper-and-pencil tests and lectures in their EFL class. K.-S. Tsi (2003) completed a valuable statistical analysis on 130,000 Taiwanese high school students writing a College Entrance Examination in English composition on the topic of the difficulties with learning English.

Students said that (a) limited vocational hindered reading comprehension; (b) limited oral and listening abilities resulted in the incorrect pronunciation of words; (c) these factors caused them to fear speaking English; (d) they were rarely given the chance to speak with native speakers of English; (e) writing presented another barrier even for students who had had years of English studies; (f) boredom and lack of interest in attending English class posed problems for teachers; (g) they felt discouraged when their English test scores always fell below average. A few students responded bluntly: “I hate my English teacher.” In other words, items (a) through (e)
above illustrate students’ difficulty with listening, speaking, reading, and writing skills, motivating us to seek better teaching strategies. In summary, the correlations between attitudinal and motivational factors in L2 or FL learning play an important role. R. C. Gardner and Lambert (1972) found that attitudes and motivation exert a strong effect on language achievement. In other words, positive learning attitude affect learners’ progress in new-language acquisition.

**Gender differences in language learning.** Numerous researchers have investigated the role of gender in cooperative settings (Fukuchi & Sakamoto, 2005; Jacobs & Eccles, 2002; Kissau, 2006; Meece, Glienke & Burg, 2006; Mori & Gobel, 2006). Researchers discovered that female students especially present higher motivation and more favorable attitudes toward learning foreign languages (Fukuchi & Sakamoto; Kissau; Jocabs & Eccles; Meece et al.; Mori & Gobel; Wigfield & Eccles, 1992). Fukuchi and Sakamoto surveyed 314 Japanese college students and found that the female students have a higher interest in and more positive attitudes toward learning a foreign language than male students in Japan.

Kissau studied 490 Canadian ninth-grade students and found that male students present less motivation to learn French than their female peers because of strong societal beliefs that girls are better at language than boys. In fact, male students claimed that language is a subject only for girls to learn. The boys are more likely to seek and challenge new tasks (Green & Toster, 1997) and are usually good at mathematics, science, or sports at school (Wilson, Stocking, & Goldstein, 1994); whereas girls favor language arts study (Mori & Gobel). For female students, it is gender appropriate to engage in verbal tasks and present more positive attitudes about taking language courses than male students (Stewart-Strobelt & Chen, 2003). In other
words, gender differences in motivation also affect their selections in curriculum activities (Wilson, Stocking, & Goldstein).

According to traditional gender stereotypes, most people consider boys tough and girls obedient (Nelson, 1990). Boys prefer to work with peers, the opposite of girls. Girls are more self-directed, self-motivated, and responsible (Honigsfeld & Dunn, 2003; Lorri, 2005). A review of Parsons, Kaczala & Meece’s (1982) study revealed that the classroom structure, such as the teachers’ discourses and expectations toward students’ gender variance affect the relations between teacher and student in classroom interactions. Their study indicates that boys tend to have more interactions with the teachers than girls. In particular, boys are called on more often than girls to answer questions; moreover, male students present higher motivation and attitudes when they receive a higher frequency of rewards from teachers (Davis & Winsler, & Middleton, 2006).

Teachers presenting different levels of attentions or attitudes toward male and female students in the classroom may account for these trends. For instance, teachers may praise or criticize male students more than female students (K. A. Nelson, 1990; Simpson & Erickson, 1983). Teachers should, therefore, distribute their attention to both male and female students equally while they are teaching (Simpson & Erickson); moreover, they should consider gender differences and incorporate them when developing appropriate curricula and learning tasks (Stewart-Strobelt & Chen, 2003; Wilson et al., 1994).

*Class levels in language learning.* With regard to whether class levels influence the motivation of language learning and acquisition, Masgoret and Gardner (2003) found that age and experience in language learning present moderating effects to
students in language learning achievement, attitudes, and motivation. More specifically, they discovered that both the university and adult language learners show higher levels of motivation behavior because the older students have clear goals toward learning English and expect to become successful language learners. Consequently, they are willing to invest more efforts than secondary students.

Kormos and Csizer (2008) investigated 202 Hungarian secondary school pupils, university students, and adult language learners’ motivation and attitudes toward English and found that all groups tend toward certain learning attitudes and motivation in English. Elementary students show higher motivation than secondary and university level students in second language learning. MacIntyre, Baker, Clement, and Donovan (2003) studied 286 seventh-, eighth-, and ninth-grade junior high school students enrolled in French immersion in Nova Scotia and found that the seventh-grade students present the highest motivation in learning French, but they believe themselves to be inadequate and are less likely to communicate in French than the eighth- and ninth-grade students. The probable reason may be that seventh graders undergoing puberty have less experience and feel more anxious in learning a new language than the eighth- and ninth-grade students.

*Academic majors in language learning.* M.-L. Su’s (2003) study of vocational students and college-bound students learning English revealed that the vocational students are less motivated to learn English than the college-bound students because English was taught as a required subject in schools in Taiwan. The vocational school students tend to specialize in acquiring professional skills, so they consider English merely another school subject. Of course, other factors, such as the lack of hours in English class, may also reduce students’ perceptions and outcomes in learning English.
Language curricula should, therefore, be structured carefully with more connection to students’ life experiences (P. S. Carroll, 1998) and should be learned in terms of meaningful uses.

The foregoing research indicates that motivation has been considered one of the most influential factors in the learning of a second language (L2) or a foreign language (FL); therefore, the teacher plays an important role in facilitating students’ intrinsic willingness to learn a language. Gan (2004) found that the teacher’s personality and teaching style influence students’ language learning. She found that a friendly teacher or an interesting class motivates students. In other words, Gan recommended establishing good teacher–student relationships by assisting students when they need help or use appropriate teaching tools and various activities in class to build the best learning environment for students and teaching for the teacher. In fact, students expect their teachers to use interesting teaching approaches to spark students’ motivation, such as games, role-playing, computers, storytelling, and sharing some authentic articles. Moreover, the teachers may need to recognize students’ leisure activities outside of their school time in order to develop curricula that maintain students’ interest and motivation (Alvermann et al., 2007).

Thus, in order to promote the highest possible motivation, Perkins (1992) pointed out that student motivation is often influenced more by what students are expected to study than strategies or methods that teachers deliver in the class. In other words, the power of intrinsic motivation supports students in reaching their desired goals, and teachers would be wise to incorporate it into the curriculum. Hence, the role of the teacher in promoting the highest possible level of motivation has been developed in the following section.
The Role of the Teacher

Some studies have shown that the teacher’s behavior or supporting discourse is an important factor in facilitating students’ motivation to learn. First, students evaluate the teacher’s performance in terms of compliments or criticism they received from the teacher (Graham & Weiner, 1987). For instance, students may earn praise like “Great! You did a good job” or blame like “You have not been doing well recently.” Indeed, the teacher should deliver more compliments to students to show caring, attention, and encouragement, for example, “I like the way you used a compound sentence instead of two simple sentences in your paper to make it more sophisticated.” At the same time, the teacher needs to explain to students that they must try hard; otherwise, they could fail.

Second, the teacher should help students to face their frustrations by giving them appropriate assistance, lots of examples, or personal experiences so that those struggling students can turn failure into success. For instance, students might complain of too many or difficult assignments; the teacher must let them know the assignments will help them get more experience with this subject (C.-S. Wu, 1990). The teacher must provide clear and simple directions with step-by-step guidance, which can improve students’ academic outcomes tremendously.

Third, the teacher should encourage students to use learning strategies that work for them so that they can find the best way to solve their problems while facing a challenge or difficult task. In addition, the teacher should build student-centered instruction so that students can make their own decisions: Students may participate in selecting the topic they would like to pursue in depth, or they may suggest the teaching method to be used to maximize their understanding of the lesson.
The Contexts of Teaching

Chuang (2001) stated that teaching resembles a variety of activities with the potential to increase student motivation. In other words, students can maintain their concentration and focus on the whole class when the lesson presented is interesting, lively, and fun. Based on suggestions (Brophy, 1987; Chuang, 2001; Day & Bamfield, 1998; Kim & Kellogg, 2007) to inspire students’ positive attitudes and intrinsic motivation in the classroom, teaching contexts must necessarily be considered.

First, the teacher should devise contexts for teaching that piqued students’ curiosity; for example, a teacher can present subject matter, opening with some inquiry questions to command the attention of students. In addition, the teacher can incorporate role play (Kim & Kellogg), pictures, or computer technology into the lesson to capture the teachable moment and generate positive interactive dialogue in the classroom.

Second, the teachers should apply H. Gardner’s (1993) powerful theory of multiple intelligences (MI), which incorporating the different intelligences into their teaching and learning activities to meet the needs of individual learners. He distinguished nine different intelligences: verbal-linguistic intelligence (words), logical-mathematical intelligence (number), musical intelligence (music), spatial intelligence (picture), bodily-kinaesthetic intelligence (body), intrapersonal intelligence (self-), interpersonal intelligence (people), naturalistic intelligence (nature), and existential intelligence (thinking). Kagan (1995) claimed that every learner is smart but in different ways. For instance, some may be good at reading skills instead of solving mathematical problems. Thus, the teacher should develop students’ intelligence in a variety of ways by teaching the skills of each intelligence so that
students present higher learning beliefs and academic outcomes (Rose, 2004). In their study, Kim and Cha (2008) also revealed the benefits by applying MI instruction to the classroom, especially to the students who were labeled low achievers became better self-regulated learners and showed higher self-esteem in learning.

Third, the teacher should provide a supportive learning environment. For instance, teacher may say something like “I know it is difficult, but I am certain that if we work on it together, you can learn to do it.” In addition to issuing a challenge, the teacher should engage students by making the activities fun and exciting so that they willingly participate and develop their sense of competence and self-worth. Fourth, the contexts of teaching should balance the power of control between the students and teacher. Even if students work on a task designed by the teacher, they can still feel they are making their own decisions and are in control.

Fifth, the teacher should understand students as individuals acquiring background knowledge, experience, ability, and attitude. In other words, teaching should adjust to individual students’ needs. Lowman (1990) stated that the most powerful rewards for the learner are not externally administered rewards but instead intrinsically administered rewards; therefore, the teacher should not hesitate to give compliments because students build self-confidence under a supportive learning environment and because positive reinforcement facilitates students’ reaching their desired goals or new-language acquisition even if the learning curve is high.

Caring and Supportive Learning Climate

This literature review supports the notion that building a learning community with cooperative teamwork applied to problem-solving for the purpose of increasing learners’ motivation; however, building such a community requires other elements,
such as environment and affective influences upon participants, details that have been discussed in the following section.

The last aspect of the learning community connected to curricula is the need to establish a caring and secure classroom culture in which students value one another and feel a sense of belonging. Important affective factors at work in an ideal classroom learning community include the following: (a) the establishment of teacher–student relationships and diversified teacher–student roles and (b) classroom management for facilitating students' reorganization into a classroom learning community. With these features in place, students will be inspired to become self-actualized, take responsibility for their own learning, and ultimately achieve academically.

Advocates of learning communities have asserted that students developed greater intellectual confidence in environments where the affective filter is low. Meanwhile, learning communities also provide comfort, emotional well-being, and psychological security. In other words, the learning community parallels the “familial” environment (Brookfield, 1995; Gabelnick et al., 1990; Kasten & Lolli, 1998) that provides love, security, and a sense of belonging. Learning communities are designed to encourage feelings of trust and respect among members who share common experiences and deal with common anxieties. Emotional and psychological support provided in such an environment can create optimal efficiency during the learning process (Burden, 2003).

The EFL classroom should serve as a safe place where individual learners can maintain complete openness and a willingness to take risks during the learning process. Krashen (1981) has proposed in his affective filter hypothesis that
second-language acquisition occurs only when the learner’s anxiety level is low and takes place in a safe learning environment. Ariza (2002) also asserted that anxiety makes language acquisition almost impossible. A good classroom climate facilitates students’ academic achievement and performance (Burden, 2003). By contrast an unfriendly or threatening classroom climate may hinder optimal learning or cause students to avoid school altogether (Burden, p. 92).

The Degree of Teacher Control

Our pedagogical forerunners asserted that the teacher’s obligation extends beyond the delivery of knowledge to students to the discourse of dialogue in the classroom to stimulate students’ thinking skills so that they can acquire comprehensible knowledge. Burden (2003) stated that teachers should serve as guiding models to promote students’ self-control and develop self-discipline. Noels (2001) analyzed 322 students’ motivation for learning Spanish and found that the more controlling the teacher, the lower the intrinsic motivation in the students. In other words teachers’ controlling styles affect student attempts at autonomous learning and also influence student motivation levels. Clearly, optimal language learning should occur in an anxiety-free environment, where students enjoy congenial relationships with their teacher. If teachers adopt diverse roles and share power with students, the latter can take charge of their own learning, gain self-esteem, and achieve their goals.

Thus, according to this philosophy teachers should share their power with students and put them in a central position so they can attain a democratic educational perspective. In addition teachers should develop a set of classroom activities within the classroom learning community so that students experience and develop their
potential to acquire a new language effectively.

*Establishing Rules and Procedures in the Classroom*

Once caring teachers ensure students’ emotional well-being, they must establish an appropriate level of discipline in the classroom. Thus, constructing the ideal EFL classroom community requires the teacher to develop a set of classroom rules for routine discipline in order to contribute to an effective learning environment for students’ experience.

Kasten and Lolli (1998) suggested that when teachers develop learning communities, they should believe that every child is teachable. In spite of the diversity of individual students’ background knowledge or learning difficulties, teachers with patience and positive attitudes toward individual students can assist in the learning and growth of their students. Individual students have their own gifts and talents; they can serve as “resident experts” (p. 136) by applying their individual strengths to assist in classroom management with the teacher and also collaborate with peers so that together they feel they are responsible like a community in the classroom. Teachers can help students establish classroom traditions, such as 10 minutes of troubleshooting time (Brookfield, 1995) before starting a class, so that they can share their learning experiences and teachers can reflect on their teaching through student feedback.

The learning community fosters students’ learning. Dewey’s notion of progressive education entails learning through making effective connections between individual experience and future competencies (Dewey, 1938/1997). Whenever individual or cooperative learning occurs through face-to-face interaction, positive interdependence enhances individual learners’ accountability, intellectual
improvement, and moral development. In other words the learning community should function as “a learning laboratory” (Smith et al., 2004, p. 337), where students cooperate and acquire problem-solving competence during the learning process. Students see one another more than 8 hours per day in school. They know one another very well, have common desired goals, share ideas, and receive valid feedback from their classmates and teachers; therefore, the classroom is the best place to form a learning community for teachers and students to work.

In general, based on the foregoing theoretical exploration and research studies, the researcher integrated cooperative learning principles into her EFL learning community, including the following:

1. Cooperative learning that focused on the principle of student-centeredness
2. Four steps of GI cooperative learning method—investigation, interaction, interpretation and intrinsic motivation
   a. Teacher-assigned open-ended problems to promote high-order thinking and application of Bloom’s Taxonomy in the classification of objectives and test questions in lessons
   b. Use of small heterogeneous groups to foster students’ learning experiences and skills during the process of cooperative learning
   c. A supportive language-learning atmosphere and instructionally stimulating and interesting resources to challenge students to become active learners instead of passive receivers
   d. Promotion of intrinsic motivation by adopting appropriate teaching techniques to maximize learning for all students in the class.
Chapter Summary

New-language acquisition occurs through complex interaction, involving critical input, output, and context. Motivation is a powerful tool for reinforcing efficacious learning; moreover, some studies have revealed that motivation is an important factor for successful acquisition of a new language (R. C. Gardner, 1985b; Noels, 2001). The key to inspiring students is not only to bring both internal (e.g., interests, aspirations) and external sources of motivation (e.g., small group works, problem-solving activities) together to engage students actively in learning (Borich, 1992) but also to create a harmonious classroom climate that challenges students’ thinking skills and develops their abilities to solve problems. Cooperative group work offers students the opportunity to help others with different abilities and strengths so that all can develop confidence and a sense of achievement. The researcher introduced the concept of the learning community into an EFL classroom in order to place students at the center of teaching so they could achieve their maximum potential to learn.
CHAPTER III

METHODOLOGY

The purpose of this study was to investigate the learning community in an English-as-a-Foreign-Language (EFL) classroom—in general, the infusion of cooperative learning and in particular, the group investigation (GI) model (Sharan & Sharan, 1992)—in order to help the EFL teachers to motivate low-achieving language learners studying English as a foreign language in Taiwan. The teacher–researcher adopted both qualitative and quantitative research methods in this study, but the qualitative action research provided its main framework, supplemented by quantitative elements. The qualitative aspects of this study included a detailed description of the action research methodology, the research setting, and participants and an explanation of the four phases of action research. The quantitative elements included research implements used in this study, the validity and reliability of the Motivation Strategies Learning Questionnaires (MSLQ), and the procedure for data collection and analysis.

Theoretical Framework for Research Methodology

The theoretical framework used in this study derived from action research, that is, research in which “practitioners actually conduct . . . for themselves” (McTaggart, 1991, p. 171) in an attempt to study their own problems in their own contexts and situations (Tomal, 2003). In other words, teachers perform as primary researchers as well as practitioners, researching issues that emerge from their own concerns about what occurs in their classrooms (Burns, 1999). In addition, the basic rationale for conducting action research in the classroom is to break the isolation of the educational environment and to “increase individual interaction within the group for supporting
change in behavior” (Calhoun, 1994, p. 33).

The following section has been divided into three parts: (a) a definition of action research, (b) the reasons that I chose action research as my methodology, and (c) how the action research model served as a guide for me, the teacher–researcher in this study.

What is Action Research?

First, action research is a research tool that potentially facilitates growth and change in an individual or a group during the research process (Reason, 2004). A number of scholars have explored the action research method and its application. Arhar, et al. (2001); McNiff, Lomax, and Whitehead (1996); Stringer (1996); and Winter (1996) have indicated first that action research is closely linked with theory and practice as well as reflection. According to the preface to Hwang, Chen, and Yan’s (2002) Chinese version of Action Research for Teachers: Traveling the Yellow Brick Road by Arhar et al. (2001), action research serves as a bridge that the practitioner–researcher can use to connect research theory (the theoretical) and practical action (the empirical).

Second, action research closely links researchers and research participants, including colleagues, students, or administrators, to form a cooperative working community. During the process of action research, teachers should listen to their students’ thoughts and feedback to acquire useful data. Action research resembles cooperative teamwork because it connects the teacher-as-researcher, students, and colleagues (Arhar et al., 2001) to practice educational improvement.

Third, action research closely links personal growth and professional development in order to change the researchers themselves, institutions, or society.
When teachers conduct their studies, they perform as primary researchers and practitioners; their research issues emerge from their own concerns about what has occurred in their classrooms and among their students (Burns, 1999). The process of action research derived from teachers’ engaging in meaningful reflection and discussion with colleagues. In other words, its benefit lies not only in the enhancement of the professional growth of teachers but also in the improvement of the education of students (Arhar et al., 2001; Nevárez-La Torre, 1999; Wallace, 1998).

*Action Research as an Appropriate Research Methodology for This Project*

The foregoing analysis has shown that action research presents unique characteristics distinguishing it from other research methods for educational improvement. First, in presenting the research purpose, action researchers expect to understand their concerns in order to produce an immediate response to problem-solving (W.-K. Wang, 1990). Second, in exploring research questions, action researchers always investigate the context of the problems that concerns them: Action research is “a small-scale and localized intervention” within a special situation, such as the researchers’ own teaching affairs or school curricula (Burns, 1999). Third, in presenting the research framework, the action researcher adapts, looks (observes), thinks (reflects), and acts in the context of a cyclical routine to discipline the research process (Arhar et al., 2001; Carr & Kemmis, 1986; Holly et al., 2009; McNiff et al., 1996; Stringer, 1996). In addition, action research affirms the learning environment in the classroom so that students feel a sense of belonging (Arhar et al.). Based on the foregoing statements, I chose action research as the best research methodology for the present study. Not only could this method help me address my own concerns, but it could also offer me an opportunity for self-reflection that could benefit both students
and teachers.

*Action Research as a Guide for the Teacher–Researcher in This Study*

According to Taiwanese scholar C.-S. Lee’s (1979) action research focuses on both “action” and “research” during the research process, making it one of the most innovative methods in exploring educational issues; moreover, educators and teachers implementing action research conduct their own studies and present research outcomes precisely to make the best decisions and solve problems effectively (Hu & Chang, 1988). In the following section, I have described the ways in which my action research guided me as both a language teacher and educational researcher; furthermore, I have outlined the procedure needed to address my students’ challenges in the areas of learning motivation.

*The Role of a Language Teacher in Action Research*

McTaggart (2002) discussed the somewhat divergent roles of scholars involved in action research and those involved in other forms of educational research. These differences stem mainly from the fact that a desire to stimulate changes in practice is an essential part of action research. Holly, et al. (2009) claimed that a teacher–researcher is ethically committed to serve students and improve teaching when conducting an action research project. As a language teacher, I must keep in mind that the primary functions of language are as follows: communication, self-expression, and thinking (Tidyman & Butterfield, 1959).

With these functions in mind, as a teacher I believe that the prevalent model of test-driven education merits reevaluation with an eye to developing a more effective approach. As a language teacher engaged in heuristic inquiry must set aside time for self-dialogue, self-analysis, and constant self-reflection (Bach, 2002)—all with the
goal of improving my praxis. I enhanced the process by soliciting student feedback, which helped me make sense of my actions. Eisner (2002) suggested that “we need feedback from our students, ourselves, or self-reflection . . . [in order] to treat teaching as a form of personal research” (p. 56). It is also important for teachers to dialogue with colleagues and administrators for the purpose of breaking the isolationist myth so prevalent in the educational field while also sharing experiences that facilitate the best schooling for students (Palmer, 1998) and enhance professional development.

The Role of a Researcher in Action Research

In Taiwan’s constrained educational system, teachers acting as researchers can improve their problem-solving ability and gain greater understanding of the human learning processes. In Negotiating the Curriculum: Action Research and Professional Development, Reid (1992) emphasized the need to critique and review what we experience—and how things happen—in the classroom by applying action research.

In order to uncover the potential role of the cooperative learning community in fostering low achievers’ motivational behavior, a practical action research methodology was used in this study. Creswell (2002) noted that “practical action research encourages teachers to seek a specific issue or problem in their own classrooms and obtain solutions to a problem in order to improve students’ learning and their own professional performance” (p. 605). Thus, as an action researcher, I understand the most common way to resolve language-learning or teaching problems is to pay attention to what goes on in the classroom and among learners (Stevick, 1980) and to conduct experiments (J. D. Brown & Rodgers, 2002), the results of which could guide my actions.
During the 15-week observation and analysis presented in this study the following criteria were in place: (a) students identified as low achievers in English academic performance were those whose English scores on their Basic Competence Test for Junior High School (BCT) fell below the average score of 11 points (See Table 3 & Figure 1) for 10th- and 11th-grade students and 32 points for 12th graders; and (b) students who were identified as having no confidence in the English-learning experience were those who demonstrated these characteristics on background surveys (Appendix A) and motivation questionnaires (Appendix B). The researcher observed the difficulties that students encountered when learning English, took some action in order to alter student attitudes, and designed an ideal language-learning curriculum by employing the problem-solving approach and creating a harmonious classroom environment.

Finally, continual self-reflection throughout this study enabled the researcher to draw from past experiences and knowledge of the site to formulate the most meaningful teaching strategies for the students. By collecting information related to student feedback in interviews, the viewpoints of other EFL teachers, student responses on questionnaires concerning types of motivation, and the researcher’s observations, the researcher was positioned to engage in critical analysis and triangulation—elements that strengthened the veracity of the data. The researcher hopes that insights gained from this study will contribute to an EFL classroom environment in which no student is left behind, to paraphrase a popular slogan in ongoing U. S. educational reform.

Research Questions

The following research questions guided this research:
1. How will the group investigation (GI) model under the cooperative learning instruction in the EFL classroom help a teacher–researcher to motivate the low-achieving vocational high school students to learn English in Taiwan?

2. What can this teacher–researcher learn from implementing the GI model under the cooperative learning instruction that will improve EFL teaching for the students of the vocational high school in Taiwan?

Setting

The setting for this study was the elective English Conversation I class at a vocational high school in Keelung, a city in northwest Taiwan. Generally speaking, a total of 4 hours of required English classes per week were devoted to the required teaching of basic grammar structure, reading comprehension, vocabulary reciting, and dialogue drills. Another 2 hours of elective classes were held on Wednesday mornings, providing additional opportunities to practice speaking and listening. Although an appreciation of the importance of English was evident in the offering of four required and two optional classes per week, positive impact on students’ academic performance or motivation to learn English had yet to be seen. A detailed discussion of the students’ background knowledge and their achievement in English has been presented below in the section on participants.

The elective English Conversation I class was conducted in a reading room, equipped with a projector and a computer, supporting PowerPoint presentations and overhead slide shows. The third floor also housed a computer lab with 22 computers available to support students’ needs, such as online surfing or finding new words in an online dictionary. The advantages and benefits of using the Internet as a tool for
instructional purpose remain undisputed. Y.-P. Tsi (2002) conducted a study of 137
Taiwanese high school students and found that their four English skills—listening,
speaking, reading, and writing—improved as a result of browsing web pages in
English. S.-C. Lu (2003) presented data on the effect of e-mail exchange on the
writing skills of 28 Taiwanese high EFL students. Because more than 88% of the
verbiage on the Internet is in English, it is a good supplement for the teaching of
English as a foreign language (Tomlinson, 1991). In the current study, therefore, both
the reading room and the technology-rich computer lab served well, not only as an
ideal EFL learning classroom in which the researcher used computer technology to
present her lesson but also as a place where the students could explore related
information by Internet.

Teaching Materials

In this study, textbook selection and lesson planning must be explained
because the objectives of the lesson plans were designed to lead students to develop
higher motivation to learn during task engagement. In 1995 the Taiwanese Ministry of
Education implemented a policy of examining English-language texts compiled by
book distributors to determine which of them provided the most substantial content
for high school students. At this school, however, the English-language textbook in
use was mandated by the school principal, who selected the Far East edition of a
series of English textbooks, notably the most widely used textbooks in Taiwanese
public and private high schools; but because no textbook was required for the students
in this elective English Conversation I course, I designed my own lesson plans on the
topic of environmental awareness by following the Far East edition of Yen’s (2004)
text entitled *English I*, “Extinction of a Species: Giant Panda.” I chose the
animal-related topic because at the time of this study, the survival of the panda was a popular issue in Taiwan. Moreover, when Sturm (2003) surveyed 2000 participants ranging in age from 2 to 18 years old at the state library of North Carolina, he discovered that animals, science, sports, and literature were their preferred subjects. In order to build the best teaching–learning environment in an EFL learning community, the researcher designed a lesson plan (see Appendix F) that accommodated the daily sample instructional activities (see Figure 3.6). The sample lesson plan derived from the cognitive domain in Bloom’s (1956) taxonomy of educational objectives, which not only provides a useful guide for teachers to develop exam questions but also presents appropriate strategies for teachers to design their curriculum and instruction.

Please refer to Appendix F, the sample lesson plan.

Participants

The 47 students in this study—19 (40%) females and 28 (60%) males—had three different majors: 6 participants (12%) majored in information technology; 9 (20%) in infant and child care; and 32 (68%) in culinary arts. They were in different grades: 13 participants (28%) were enrolled in 10th grade; 10 (21%) in 11th grade; and 24 (51%) in 12th grade. The age of participants ranged from 16 to 18 years. They were enrolled in the English Conversation I course at a vocational high school. All the participants were native speakers of Mandarin Chinese in pursuit of vocational high school education in Taiwan.

The 47 participants were selected through convenience in this study because I taught at this school and was concerned with language-learning and teaching problems in my classroom; therefore, I decided to enlist the 47 students enrolled in my class as my study participants. In line with participants’ rights, well-being, and
privacy, the participants all consented to take part in this study by returning the consent form (Appendix K), signed by both students and their parents. Table 1 summarizes the participant demographics by gender, age, grade, and academic major.

Table 1

Participant Demographics Data

<table>
<thead>
<tr>
<th>Gender</th>
<th>Age Range</th>
<th>Grade</th>
<th>Frequency</th>
<th>Academic Major</th>
<th>Total Participants</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>16 to 18</td>
<td>10th</td>
<td>9</td>
<td>Culinary arts</td>
<td>n=28</td>
</tr>
<tr>
<td></td>
<td></td>
<td>11th</td>
<td>3</td>
<td>Information Technology</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>5</td>
<td>Culinary arts</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>12th</td>
<td>11</td>
<td>Culinary arts</td>
<td></td>
</tr>
<tr>
<td>Female</td>
<td>16 to 18</td>
<td>10th</td>
<td>3</td>
<td>Information Technology</td>
<td>n=19</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>1</td>
<td>Culinary arts</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>11th</td>
<td>2</td>
<td>Culinary arts</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>12th</td>
<td>9</td>
<td>Infant &amp; child care</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>4</td>
<td>Culinary arts</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>N=47</td>
</tr>
</tbody>
</table>

English Performance of the Participants

Generally speaking, the majority of students in the study presented low achievement in their junior high school and failed the Basic Competence Test (BCT) on the Joint Junior High School Entrance Examination. As a result, they enrolled in 3-year vocational high school programs to pursue technical skills so they could enter the world of work after graduation. In the following section the context for EFL learning in a vocational high school in Taiwan has been described.
The Context of EFL Curriculum in Vocational High School in Taiwan

The purpose of the curriculum in the vocational high school was to develop students’ professional technical skills so they could enter the workforce after graduation. Therefore, students paid more attention to acquiring technical knowledge and skills and earning technical licenses than to learning English. These students attended four English classes per week. English was considered a required course, but students did not devote themselves eagerly to learn; therefore, the majority of the students in this private vocational high school failed their prior Basic Competence Test (BCT) on the Joint Junior High School Examination and Technology Vocational Education (TVE) Joint College Entrance Examination.

*BCT and TVE Entrance Examination.* Both the BCT and TVE examinations are tools for the Ministry of Education to evaluate the academic performance of all Taiwanese students. The BCT is required for junior high school students to enter a high school. The TVE Joint College Entrance Examination is for high school students who intend to apply to a college. The BCT is administered twice a year in May and July; the TVE, once a year in September.

Armstrong (2000) claimed that students’ prior academic performance offers powerful data for predicting future behavior and academic performance as well as helping the teacher improves teaching, so I asked students to write down their prior BCT percentiles in English for me; but most of them could not remember or estimated incorrectly. I decided to ask for help from the school administrators. Fortunately, I was able to obtain the BCT scores for all 23 students in the 10th and 11th grades, whose transcripts accurately showed their English scores. As to those 24 students in the 12th grade, no records were available, so I decided to include their TVE College
Entrance Examination scores from 2007 instead. Five of the 24 students in 12th grade planned to enter the workforce after graduating, so no BCT scores were available and taking the TVE had been unnecessary.

According to the national average scale scores in English announced by the Committee on the Basic Competence Test for Junior High School Students in Taiwan, the perfect BCT score for junior high school students was 60 points. The average scale scores were calculated by computing the number of questions answered correctly by students. The higher BCT scores they gained, the better knowledge they had in this subject. The researcher examined the data and made some calculations. The average English score for the 23 students in 10th and 11th grades on the BCT was 11 points, ranging from the lowest at 1 to the highest at 43. According to the national average scale scores in English subject on the BCT examination (See Table 2), the participants in the study answered 20 out of 45 questions correctly so that they received a scale score of 11 points.
Table 2

The Average Scale Scores in English on the BCT Examination

<table>
<thead>
<tr>
<th>Correct</th>
<th>Scale Score</th>
<th>Correct</th>
<th>Scale Score</th>
<th>Correct</th>
<th>Scale Score</th>
<th>Correct</th>
<th>Scale Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>1</td>
<td>12</td>
<td>1</td>
<td>24</td>
<td>17</td>
<td>36</td>
<td>35</td>
</tr>
<tr>
<td>1</td>
<td>1</td>
<td>13</td>
<td>1</td>
<td>25</td>
<td>18</td>
<td>37</td>
<td>37</td>
</tr>
<tr>
<td>2</td>
<td>1</td>
<td>14</td>
<td>3</td>
<td>26</td>
<td>20</td>
<td>38</td>
<td>39</td>
</tr>
<tr>
<td>3</td>
<td>1</td>
<td>15</td>
<td>4</td>
<td>27</td>
<td>21</td>
<td>39</td>
<td>41</td>
</tr>
<tr>
<td>4</td>
<td>1</td>
<td>16</td>
<td>6</td>
<td>28</td>
<td>23</td>
<td>40</td>
<td>43</td>
</tr>
<tr>
<td>5</td>
<td>1</td>
<td>17</td>
<td>7</td>
<td>29</td>
<td>24</td>
<td>41</td>
<td>45</td>
</tr>
<tr>
<td>6</td>
<td>1</td>
<td>18</td>
<td>8</td>
<td>30</td>
<td>26</td>
<td>42</td>
<td>48</td>
</tr>
<tr>
<td>7</td>
<td>1</td>
<td>19</td>
<td>10</td>
<td>31</td>
<td>27</td>
<td>43</td>
<td>51</td>
</tr>
<tr>
<td>8</td>
<td>1</td>
<td>20</td>
<td>11</td>
<td>32</td>
<td>29</td>
<td>44</td>
<td>55</td>
</tr>
<tr>
<td>9</td>
<td>1</td>
<td>21</td>
<td>13</td>
<td>33</td>
<td>30</td>
<td>45</td>
<td>60</td>
</tr>
<tr>
<td>10</td>
<td>1</td>
<td>22</td>
<td>14</td>
<td>34</td>
<td>32</td>
<td></td>
<td></td>
</tr>
<tr>
<td>11</td>
<td>1</td>
<td>23</td>
<td>16</td>
<td>35</td>
<td>34</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: Committee on the Basic Competence Test for Junior High School Students in Taiwan (2008) http://www.bctest.ntnu.edu.tw/

On the TVE examination, a perfect score was 100 points. The average English score for the 19 students in 12th grade on the TVE was 32, ranging from the lowest at 18 to the highest at 48 points. Only the lowest scores required for admission to individual technical and vocational colleges were announced by the Committee on Technical and Vocational Examination for high school students in Taiwan; therefore, no further national statistical data on vocational high school students’ academic
performance on the TVE were analyzed.

In addition, Y.-W. Lin (2005) expressed his concerns on the stagnation of technical and vocational education in high school in Taiwan. At the time of Lin’s research, a total of 473 high schools operated in Taiwan; of these only 161 (34%) were technical and vocational high schools, and 312 (66%) were general high schools; moreover, he described public perception of technical and vocational high schools as second or choice for students who performed poorly in junior high. For a long time, vocational high school students’ academic performance has been neglected by the public and by educational policymakers in Taiwan (Sue, 2004). Clearly, students must attend college for access to better jobs in Taiwan (Ton, 2004).

Most of the students in this school were ill-equipped to pass either the BCT or the TVE exam. Data on participants’ average English scores on the BCT and TVE present in Table 3. Figure 1 shows participants’ BCT and TVE ranking scale in English in graphic form.
Table 3

*Participants’ BCT and TVE Performance*

<table>
<thead>
<tr>
<th>Exam</th>
<th>Grader Range</th>
<th>Frequency</th>
<th>Score Range</th>
<th>Average Score</th>
<th>Total Participants</th>
</tr>
</thead>
<tbody>
<tr>
<td>BCT</td>
<td>10th to 11th</td>
<td>13</td>
<td>0-10</td>
<td></td>
<td>n=23</td>
</tr>
<tr>
<td></td>
<td></td>
<td>9</td>
<td>11~20</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>0</td>
<td>21~30</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>0</td>
<td>31~40</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>1</td>
<td>41~50</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>$\bar{X}=11/60$</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>18%</td>
<td></td>
</tr>
<tr>
<td></td>
<td>11th to 12th</td>
<td>10</td>
<td>21~30</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>4</td>
<td>31~40</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>4</td>
<td>41~50</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>5</td>
<td>Planning to find a job after graduation</td>
<td></td>
<td>n=5</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>$\bar{X}=32/100$</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>32%</td>
<td></td>
</tr>
<tr>
<td>TVE</td>
<td>12th</td>
<td>1</td>
<td>18~20</td>
<td></td>
<td>n=19</td>
</tr>
<tr>
<td></td>
<td></td>
<td>10</td>
<td>21~30</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>4</td>
<td>31~40</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>4</td>
<td>41~50</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>$\bar{X}=32/100$</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>32%</td>
<td></td>
</tr>
</tbody>
</table>

*Note.*

BCT: Basic Competence Test for Joint Junior High School Examination. English Perfect score = 60 points.

TVE: Technology Vocational Education Joint College Entrance Examination in 2007. English Perfect score = 100 points.

N=47
Although the participants performed poorly in English, the popularity of learning English in Taiwan was undeniable at the time of this study. Taiwanese parents insisted that the earlier their children learned English, the better English skills they would develop. In interviews with students, 46 (99%) of them stated that their parents asked them to attend extra language programs, such as “cram schools,” for one to three years beginning in fourth grade to improve their English. Only one male participant had no English learning experience outside school because he lived in a rural area. By studying students’ demographic information, the researcher learned a great deal about behaviors, daily leisure activities, and attitudes toward language learning. Based on the survey, in the following section, the researcher has presented the characteristics of the participants along with her emerging thoughts as an action researcher informed by the literature.

**Characteristics of Participants**

*Attitudes Toward Language Learning*
The primary objective of the English Conversation I course was to develop students’ speaking skills so they could express themselves in their work; however, students’ negative attitudes toward learning English and frustrated attempts in language study caused difficulties in reaching course goals because interactive dialogue is the key to the acquisition of a new language (H. D. Brown, 2000). Designing a curriculum from the students’ point of view can lead to the practice of a teachable moment-oriented curriculum in an EFL classroom (Hyun, 2006). The teachable moment-oriented curriculum guides the teacher–researcher to carry on a conversation with the students on their ideas for learning English so that students promote their interests and show excitement to engage in learning.

How did I incorporate the teachable moment-oriented interactive dialogue related to the students’ points of view on language into my study and create an EFL classroom amenable to both teaching and learning? As an action researcher and language teacher, I valued individual students’ opinions and treated them respectfully. I also believed that they had potential but needed time and guidance from the teacher. Therefore, I needed to bring students’ voices into the classroom and listen to them, so I would know exactly how I had to teach in order to promote student learning; their thoughts have been summarized in the next section.

Considering what they thought about the importance of learning English, the students all agreed that English is an international language and is important to learn. As for the purpose of learning English, 34 (73%) believed that knowing English gave them opportunities to go abroad and communicate with different people; 11 (23%) thought it opened doors to better jobs; one (2%) believed English was important only to pass school examinations; and one (2%) needed English to play computer games.
When asked to talk about their prior experiences in learning English, the results revealed that only 4 (9%) participants really enjoyed it; 39 (82%) acknowledged that they felt terrible, and 4 (9%) had no feeling at all because their confidence in learning English had been further diminished each time they failed a test. Table 4 summarizes participants’ attitudes about the purpose of learning English as revealed in the demographic survey, and Figure 2 indicates students’ attitudes toward their prior experiences in learning English.

Table 4

<table>
<thead>
<tr>
<th>My purpose in learning English is to…</th>
<th>Percentage (100%)</th>
<th>Participants N=47</th>
</tr>
</thead>
<tbody>
<tr>
<td>go abroad and communicate with different people</td>
<td>73%</td>
<td>34</td>
</tr>
<tr>
<td>apply for better jobs</td>
<td>23%</td>
<td>11</td>
</tr>
<tr>
<td>pass school examinations</td>
<td>2%</td>
<td>1</td>
</tr>
<tr>
<td>play computer games</td>
<td>2%</td>
<td>1</td>
</tr>
</tbody>
</table>

Figure 2. Data on participants’ attitudes toward prior experiences in learning English.
In answer to my questions about their favorite school subjects, 18 participants (39%) identified physical education class as their first choice because they had fun getting exercise or playing basketball with classmates. Eleven (23%) considered the technology proficiency class useful because it provided opportunities to learn the skills by doing. Three (6%) admitted that they liked English most because English was the only subject in which they could compete with others in class; 15 (32%) selected study hall as their favorite time at school. Study hall is a class period in which students can do their homework or take a rest; no classroom instruction occurs in study hall. Figure 3 presents the participants’ favorite school subjects.

Figure 3. Data on participants’ favorite school subjects.

After reading students’ responses on their negative attitudes toward language learning, I as the action researcher for this study contemplated whether my own actions contributed to the problem in any way. I faced students’ negative language learning attitudes head-on by structuring interactive dialogues with them (Brookfield, 1995) in order to understand what they wanted and what approaches worked best in order to inform an effective EFL classroom. What follows summarizes students’
responses about their use of English in daily life and related information about their parents.

The Use of English in Daily Life

When asked how many of the participants spent time engaging in any English activities outside the class, 6 (13%) said they spent 1 to 2 hours per week listening to music, watching movies, or browsing through magazines. Only 4 (9%) participants had visited an English-speaking country, staying from 2 days to 4 months visiting their relatives who lived in the USA or the Philippines. The data in Table 5 shows in what English-related activities participants engaged outside of school and for how long.

Table 5

Data on Participants’ Engagement in English-Related Activities Outside School

<table>
<thead>
<tr>
<th>How long do I spend a week in English-related activities after school?</th>
<th>Percentage (100%)</th>
<th>Participants N=47</th>
</tr>
</thead>
<tbody>
<tr>
<td>I spend 1 to 2 hours per week engaged in English-related activities outside school.</td>
<td>13%</td>
<td>6</td>
</tr>
<tr>
<td>I have had the opportunity to visit an English-speaking country.</td>
<td>9%</td>
<td>4</td>
</tr>
<tr>
<td>I do not participate in any English-related activities after school.</td>
<td>78%</td>
<td>37</td>
</tr>
</tbody>
</table>

According to the demographic survey I conducted, a large percentage of participants in this study presented lower English academic performance, a lower level of interest in learning English, and engaged in few, if any, English-related
activities after school. They were dissatisfied with prior experiences in learning English and had no expectations for future learning of English in school.

Considerable research has shown that motivation is one of the essential factors in successful foreign language learning (H. D. Brown, 1994; C.-L. Wang, 2005; R. C. Gardner, 1985a; M.-L. Su, 2003). According to demographic survey, the participants in this study showed their lack of confidence and motivation to learn a foreign language; thus, in order to promote student learning, teachers need not only to reflect and reconstruct a different curriculum and a different form of instruction in school but also to understand more about students’ family background in order to build positive partnerships between school and families.

Involvement of Participants’ Parents

A series of studies have emphasized the impact of student characteristics, such as age, gender, and prior academic achievement, on their academic performance in school (McCaffrey, Hamilton, & Stecher, 2001); but family-related factors, such as socioeconomic status and parental involvement, also affect students’ academic outcomes (Rumberger, Ghatak, Poulos, Ritter, & Dornbusch, 1990; Williams, Davis, Cribbs, Saunders, & Williams, 2002; Yang & Lin, 2004). In order to avoid asking questions to which students may not have known the answers, regarding such factors as family income, I decided to ask them to state their parents’ occupations and whether or not any family members spoke or wrote English and also who supervised their schoolwork. In the following, participants’ family-related data have been presented.

First, all participants were adolescents, and 37 (79%) came from nuclear families; seven (15%), from single-parent families; and three (6%), from families in
which grandparents were responsible for child-rearing. Some researchers have reported that adolescents from single-parent families generally present lower school grades and aspirations (Astone & McLanahan, 1991; Garg, Melanson, & Levin, 2006; Heard, 2007). In the case of the participants in this study, however, family structure was not the main issue in promoting academic achievement; instead patterns of parent–child and sibling interactions and parental involvement in their education were more important. I discovered this by interviewing students about their parents’ reactions to their enrollment in an English class that was different from a traditional Chinese class. Most of them did not tell their parents about their involvement in this research. Students said they seldom shared their daily school lives with their parents, so they forged their parents’ signatures on the consent forms. Other examples from the students’ interviews indicated that students were alienated from their families. Following is an extreme example of one student who needed to repeat the 10th grade because he failed 8 of 12 subjects. In the vignette, the initial T represents the teacher and S represents the student.

T: Did your parents ever ask about your academic performance at midterm exam time?
S: Yes, but I always told them I hadn’t received my report card yet. Then they forgot all about it. I forged my parents’ signatures on my report card.
S: What do your parents do for a living?
T: My parents run a grocery store. They work evenings until midnight. I play computer games until they get home.
T: Wouldn’t your mom get mad at you if she knew you failed at school
and needed to repeat 10th grade?

S: Mmm. . . . (Interview 0626)

In fact, many families in this study devoted most of their time to making money to cover everyday expenses and seldom participated in their children’s school lives; economic issues precluded extensive parent involvement (Waanders, Mendez, & Downer, 2007). In this study, a large number of parents also experienced time constraints in their occupations, which included food service, taxi or truck driving, and crab harvesting. In other words, if they had little control over their work schedule, they were less able to take time off for activities with their children. They did not even have time to check their children’s homework nor did they supervise their children’s daily morning routine, causing a problem at this school—students’ late arrival. The interview above revealed few interactions between parents and children. Clearly, interaction between a child and parent is a critical factor in the learner’s academic performance in school.

Chin (2007) spent 6 years completing a study of 107,834 fifteen-year-old adolescents in 41 countries in order to determine the relationship between students’ family structure and their achievement in science. His findings indicated that students presented higher scores in science if they (a) lived with two parents, (b) enjoyed higher socioeconomic status (SES), (c) owned a substantial number of books to read at home, and (d) communicated with their parents at home. In sum, parental engagement in schooling not only reduces the drop-out rate for students (Astone & McLanahan, 1991) but also supports their motivation to learn (Knollmann & Wild, 2007) as well as academic achievement (Grolnick & Slowiaczek, 1994).

Parental English language skills and the main language spoken at home were
also necessary to know. According to social constructivists, language should be learned through discourse and interaction with others. In Taiwan, English is a foreign language and is taught only at school. According to self-reporting from students, of the 47 participants, the members of 42 (89%) families did not have basic English skills in listening, speaking, reading, and writing. Only the members of five (11%) families could carry on basic conversation and read simple texts.

Participants' Academic Performance and Daily Behaviors

Finally, with the detailed demographic data and family information in hand, the researcher concluded that her participants were on average 16- to 18-year-old underachieving adolescents, based on their junior high and high school scholastic records on the BCT and TVE examination. Reviewing some previous studies on underachievers (S.-Y. Kuo, 1995; P. J. Kuo, Le, & Cho, 1995; T. F. McLaughlin & Vacha, 1992; Tan et al., 2007) and interviewing the 47 participants in the study, I concluded that they also tended to exhibit some of the characteristics and behaviors of underachievers. The characteristics commonly shared by underachievers fall into two basic categories: academic achievement and daily behaviors. These are enumerated as follows:

Academic achievement

1. Underachievers respond inadequately to questions on written tests, making their academic performance lower than other students.

2. Most underachievers are frustrated by the learning process in school and fail to perform well on their junior high school entrance examination.

3. Underachievers tend to copy assignments from their classmates and make excuses to turn in work late.
4. Underachievers prefer direct instructions by the teacher and taking notes from teachers’ lectures.

Daily behaviors:

1. Underachievers tend to be emotionally dependent on the attention of parents and teachers.
2. Underachievers show excellent memory and comprehension skills when engaged in subjects that interest them.
3. Underachievers seem to be easily distracted.
4. Underachievers show a lack of motivation and perseverance in terms of learning.
5. Underachievers appear to have difficulty in the areas of self-control and time management.
6. Underachievers need more time to learn a subject than most of their peers.
7. Underachievers dislike attending school and completing assignments.
8. Underachievers have low school attendance rates.
9. Most underachievers lack adequate family support. (S.-Y. Kuo; P. J. Kuo, Le, & Cho; T. F. McLaughlin & Vacha; Tan et al.)

The students in this study presented negative attitudes toward learning and low motivation because of several factors, including limited parental intervention and the traditional whole-class method of instruction; but they needed support from both school and family to build their confidence and motivation to learn a language. Stereotypical EFL instruction primarily focuses on rote learning, listening to teachers’ lectures, and calling on students to answer questions. Such teacher-centered
instruction should be modified to support student-centered learning because the latter stimulates students to think critically, leads them to become active learners, and enhances the social interaction skills (Brookfield, 1995).

In this study, students presented inadequate English performance, revealed by scores on the BCT and TVE examination. They had difficulty in English reading comprehension because of a lack of vocabulary and basic English grammar; moreover, students were frustrated in their English learning experience, which was informed by classroom dialogue with the students and the student demographic survey. They strongly believed that their low capabilities and poor language learning strategies could frustrate them in new language acquisition. The student demographic survey, dialogue in the classroom with the students, and the underachiever characteristics discussed in literature provided information that allowed the researcher to articulate some factors contributing to the students’ low motivation while studying in her EFL classroom (See Figure 4).
Figure 4. Low motivation factors map.
Role of the Researcher

The researcher was a faculty member at this vocational high school at the time of this study. To her mind, teachers must create emotionally supportive, caring environments so that students’ interest and motivation to learn are inspired (W.-C Lin, 2002). During the study, I sincerely wished to get to know about my participants by conducting whole-class classroom dialogues and holding individual conversations so I could glean valuable information for my research.

In *Knowing Children: Participant Observation With Minors*, Fine and Sandstrom (1988) clarified the relationship between researcher and participants, especially adolescents. They asserted that researchers must treat adolescents with equality, trust, and respect while engaging in participant observation with them. In Chinese tradition teachers are to be highly respected by students, but I checked my actions and placed myself—action researcher and a language teacher—in the position of trust without the traditional hierarchical distinction (Zhan & Le: Zha04171) because the participants in my study were 16- to 18-year-old adolescents with complicated psychology and rebellious behaviors.

As a language teacher, I was concerned about how my teaching motivated my students to learn English in the EFL context. As a researcher, I was eager to find valid resources to build a trusting, respectful, and friendly relationship with her adolescent participants.

Procedure

Action research, like all research activities, follows rules and procedures; furthermore, it takes the form of a continuous cycle of inquiring, exploring, identifying, and solving a problem that has occurred in the classroom (Tomal, 2003).
It entails not only a review of literature but also continuous revision and reflection on the “action” until the problem is solved. Thus, when embarking upon this study, I conducted a review of literature, an important step during which the researcher acquires useful ideas from the findings of others with regard to the chosen topic.

In the present study, however, the literature review was conducted not only at the beginning of the study but also throughout the entire process of the study in order to build clear knowledge of theories related to the topic. Designing an appropriate research method, using research instruments, practicing the four phases of action research—initial diagnosis, planning, implementation, and modifying action (Tomal, 2003)—and acquiring sufficient findings for solving problem were the steps in the procedure I followed. I also kept a weekly journal throughout the entire study. Because the idea of doing this study involved low achievers’ disappointing attitudes toward learning English, I wanted to develop an effective EFL classroom for the purpose of understanding the difficulty of underachievers and rebuilding their confidence in learning English. A detailed illustration of what happened in the EFL classroom and what I did to make teaching and learning improvements has been included in the section on the four phases of action research.

The goals of action research are continually reflected in our own actions, which are modified until we find the best way to solve the problem and make improvements (Tomal, 2003). The four phases of action research were important sources to clarify what happened in the classroom and to incorporate findings into the present study. Thus, I first selected a group of 47 students to serve as the target population. Second, the location of the present study was selected—the school reading room. Third, the teacher–researcher engaged in practical action research,
incorporating cooperative learning instruction to inspire student motivation in learning English.

Regarding the research instruments, I designed questions for the survey of student background in English (Appendix A, Chinese version), the individual student interview (Appendix C), observation checklists on student interaction in small groups (Appendix D for teacher use), and the team interaction feedback evaluation form (Appendix E for student use). I based my questionnaire on student motivation (Appendix B, Chinese version) primarily on the Motivated Strategies for Learning Questionnaire (MSLQ) by Pintrich, Smith, Garcia, and McKeachie (1991) to gain an in-depth understanding of students’ motivation to learn English in an EFL classroom in Taiwan.

Figure 5 illustrates the procedure designed for the present study in terms of qualitative action research and the way the various research instruments were used in order to assess the validity of findings and results throughout the study. Table 6 contains a detailed description of all experimental instruction. It represents a daily sample of instructional activities. The class met every Wednesday from 8:20 a.m. to 10:10 a.m. for a total of 100 minutes in two consecutive class periods.
Figure 5. Research procedure.
Table 6

Sample of Daily Instructional Activities in the EFL Classroom

<table>
<thead>
<tr>
<th>Time</th>
<th>Task</th>
<th>Data collection</th>
</tr>
</thead>
</table>
| 30 minutes | Motivation stage:  
1. Delivering inquiry questions on the content-relevant topic  
2. Activity, such as viewing a 10-minute videotape, role-playing, or viewing some visual aids, etc. | Teacher observes individual student discourse, specific behaviors, or actions in small-group settings by completing observation checklists (Appendix D) |
| 60 minutes | Group discussion stage:  
Students form a group and work on their task. | Students self-evaluate the Team Interaction Feedback Evaluation form (Appendix E)  
Collect student worksheets |
| 10 minutes | Assessment stage:  
Alternative assessment is held. | Students self-evaluate the Team Interaction Feedback Evaluation form (Appendix E)  
Collect student worksheets |

The four phases of action research were conducted to gain a better understanding of students’ reactions to language learning in the cooperative setting and my self-reflection provided direction on modifying what I needed to present differently.

The Four Phases of Action Research

The First Phase of Action Research: Initial Diagnosis (03/07/2007–03/14/2007)

The purpose of the first phase of action research was to understand why
students presented lower learning motivation and attitudes in their EFL classroom. I began my study and met my students for the first time on March 7, 2007. I was excited to teach, and I was intent on making a difference in the English learning experiences of my students. I had selected a computer lab for the first class meeting, so I decorated it a few days earlier to capture students’ interest in the EFL classroom. A total of 22 computers were available for student use. I also made use of equipment in the computer lab to decorate a vocabulary wall, promoting better long-term retention for learning. My students had repeatedly complained that they could not remember words effectively and that they had to learn too many of them. One student said that he spent much time learning new words one day but forgot them the next day. Thus, the best way to help students retain new words was by posting them on the wall in certain areas, such as bulletin board, or by fastening a “No sleeping in class” poster on the front door and labeled the bulletin board where we would place announcements.

Liang’s (2003) study explored the significant effects of visual aids as supplementary teaching materials on junior high EFL students’ English reading performance in Taiwan. In this study, I posted various visual aids and posters all around the room to show students what they were going to learn and give them a good impression of this EFL classroom. This method helped students build long-term retention without relying on rote learning.

I was nervous and perspiring. I felt as if it were my first day of teaching all over again. I kept asking myself, “How will my students react to my teaching today? Will my teaching go well during the lesson? What will happen if the students do not interact well with me in the classroom?” My heart sank when the bell signaling the beginning of class rang because some students lingered in the hall outside the
classroom socializing with their friends.

Students arrived one by one with nothing but MP3s players and cell phones in their hands. At the beginning of class, I spent time waiting for late arrivals. I told myself I had to start the lesson instead of wasting time with a roll call. In fact, I did not even have enough time to present my scheduled lesson in which I wanted to introduce myself and share my own difficult experience with learning English. Therefore, I played music and taught English songs so students arriving late would not interrupt the lesson. I also realized that it was a school policy during the first two weeks of the semester, students were allowed to consider and have the option either to drop my class or not; therefore because of students’ late arrival and the uncertain enrollment, I had difficulty presenting my lesson and starting my study.

Finally, it was time for their 10-minute break, and all of them just left. No one stayed in the classroom. Some went to the restroom, but most of them went to the school office to fill out the class withdrawal application form. I was disappointed because things did not go as well as I hoped. It seemed that students appreciated neither what I had done to prepare the new EFL classroom nor the visual aids I put up around the room nor the children songs I played so they could learn English in different ways and have fun. They chatted with one another instead of singing along with me; moreover, some of them put their heads down on their desks or engaged in off-task work. No interaction and no learning took place at all; students sat passively in class because most of them had been forced to enroll in this English class.

Actually, I had experienced all this before when I taught for 5 years and faced students’ lack of both response and interaction in the classroom. Meeting such challenges and problems in the classroom motivated me to find out about students’
interests by holding interviews. Troubleshooting (Brookfield, 1995, p. 101) is one of the forms of problem-solving through critical conversation with students during which they can express their concerns about the course and suggest ways the curriculum could be improved. Eventually, I gained the insight necessary to reframe my own teaching by dialogue to bring students voices into the curriculum and thus discovered some of the reasons that these students enrolled in my EFL classroom.

These students had enrolled in my EFL class for several reasons. First, the other classes they registered for had already been filled. Second, the school staff placed some of them into this course because my EFL class had not been filled. In other words, this was the way for school staff to balance the average number of students in each elective class and assign them to classes even if these were not their first choices. Third, some students could not afford to pay the extra tuition fees for textbooks or ingredients required in some classes, so this English Conversation I course was their choice by default. Fourth, some students had no interest in the class but enrolled because their friends did. Last, some of them admitted that they registered for English Conversation because they had to finish four elective classes, and this English conversation class was their last choice. In fact, students had over 50 elective courses from which to choose, so I understood how difficult it was to assign students in this English class without complaints from them.

I could not believe how reluctant students were to take an English course, how negative student responses were when they shared their difficulties in learning English. Of course, most of them acknowledged that English is highly valued in our society; however, when I asked them to explain what they think about learning English, students’ responses were unbelievable! The most frequent answer was
“English is difficult,” followed by “I hate English. I don’t want to see English ever again.” Other answers included the following: “I don’t understand English at all”; “Learning English is not fun”; “English is terrible”; “English is not our language, so why do I have to learn it?” They continued to talk about why they disliked attending English class. One male student said:

   English is very hard and painful to learn because I have to memorize too many words. Even if I spend time studying, I still have a difficult time understanding it. I also have difficulty pronouncing even a single word. You don’t expect me to know basic rules of English grammar. I failed all my English tests, so I don’t believe I can learn successfully and actually I don’t want to learn.

   (Interview, 0307)

   Having my students describe English in their own terms was instructive for me. They knew what the typical English class was like: studying grammar and vocabulary and repeating dialogues; the traditional strategy for learning English involved extensive reciting from memory (Field & Aebersold, 1990). Such English learning strategies cannot help the students in language acquisition, but as a result of this type of teaching, students conclude that such strategies are important in successful learning (Chong, 2007).

   I was also dismayed at the students’ lack of response in my classroom. Their responses indicated how poorly they received my presentation. A male student stated that he was attending my EFL classroom that day only: He was not interested in English at all and made his response to the way I presented my lesson quite clear:

   Yes, it was quite simple for me to learn the dialogue of “introduce you and me,” but it was too childish to clap hands and sing a song. Besides, I did not
know anyone in the classroom but myself, so I felt bored during the class.
(Researcher journal, 0307)

One student expressed the same feeling about how she did not enjoy singing songs. She stated how she felt about singing:

Can we just listen to music instead of singing songs? I was too embarrassed to sing songs in class. Besides, you were playing little kids’ songs. I might enjoy pop songs, but just listening, not singing. (Researcher journal, 0307)

Finally, class was over. I knew most of them had decided to withdraw from my EFL classroom. Although I did not get good responses from students, I would not give up because, after all, I was conducting this study to solve problems that I always encountered in my EFL classroom at this vocational high school in Taiwan.

Self-reflection is an important key to help teachers examine what has worked and what has not in the classroom (Brookfield, 1995). They must find out the answers and turn them into positive ways to practice teaching.

*The first phase of reflection.* Following are reflections on what I learned from my students and what I could have done differently in my class. The experience of practicing critical reflection made me more aware of what I could do better to respond to problems and teach well.

First, I realized how hard it was to recruit students to attend an extra 2 hours of an EFL lesson because they had already had 4 hours of required EFL lessons per week. I also considered the reason my lessons—“Introduce you and me” and “Let’s sing”—failed during the first class meeting. I should have shared my own experience learning English to draw students’ attention instead of insisting on transmitting knowledge. The teacher should be a facilitator (Isakson & Boody, 1993) to help those students
who believed they could never succeed in the English learning experience. I learned that especially on the first day of the school year, the best lesson should be presented (Edwards, 1993), one in which the teacher and students can get acquainted and learn about one another. I could also have shared articles from newspapers or magazines on how some famous person struggled in learning English, such as Jolin, a popular singer in Taiwan, so that the students would realize that most people experience difficulty when learning English. Some words of encouragement could have been presented during the first class meeting. I should have explained to them that this class would be absolutely different from the traditional paper–pencil and grammatical structure drills in an English class. We would engage in lots of talk and tasks that facilitate interactive learning.

I agreed that learning English involved an annoying learning process, but I promised them also to implement new learning techniques, which would rebuild their confidence and raise their level of achievement in English. After that, students could make their own decision on whether or not to challenge themselves and embark on an exciting journey to learning a new language. Once I included these techniques in my teaching, students might believe they are capable of learning a new language and commit themselves to spending a semester with me on this learning journey.

Second, I should have realized that diverse cultural backgrounds can influence students’ learning attitudes, causing silence or hesitation to speak up in class. A study by Niehoff, Turnley, Yen, and Sheu (2001) illustrated the different learning attitudes of American students and Asian students. The results showed American students tend to enjoy group activities. American teachers conduct their teaching by delivering inquiry questions, encouraging students to engage in conversation to express
themselves on the topic in class. Expressing ideas, sharing different points of view, and engaging active interactions are typical in American classrooms, but these behaviors are challenging for most Asian students.

Third, assessing myself as a learner (Brookfield, 1995), I always remained inconspicuous in class and seldom contributed to the class discussion when I was a student. My behavior did not mean that I valued being silent or was generously creating space for others to participate. On the contrary, I was eager to participate and contribute my ideas in small group discussion because I felt comfortable. Therefore, I planned to be deliberate and clear in my teaching expectations by encouraging students to appreciate task-talking as a pleasing activity and a good way to present their developing new language skills. I also understood students who felt comfortable only working in a small group discussion; I knew that English should be learned through interactive instruction (H. D. Brown, 2000). Although silence and hesitation to talk may seem polite Asian behavior, they are actually barriers to the acquisition of a new language.

Such understanding not only provided me a new theoretical framework for educational practice in the classroom, but it also revealed a truth that most of the students have been disengaged in English learning in the EFL classroom for a long time. I knew I had to bring out the students’ voices to inform my daily teaching actions and decisions on students’ learning; moreover, developing reflection as teacher, I examined my beliefs on shaping the best curriculum to renew students’ motivation for learning a language.

The Second Phase of Action Research: Planning (03/21/2007–05/02/2007)

The purpose of the second phase was to develop an action plan that reflected
the needs of the students. After two weeks of considering whether to remain in my
class or not, some students decided to withdraw, but others stayed. Finally, there were
a total of 47 students enrolled in my EFL class. On March 21, 2007, I began my study
with this group. I arrived at the classroom early, so I could dispel any worry and
present my lesson well. Based on the difficulties I had previously met in my EFL
classroom, I saw the critical importance of motivating and engaging students; and
fortunately, I had some plans to do so.

Based on experience in the computer lab, I realized it was too small to
accommodate over 40 students at the same time. When students pulled out their chairs
and sat down, I could hardly maneuver around the room to observe them closely.
The only thing I could do was to stand on the stage yelling.

Herzog (2007) investigated classroom features, such as size and whether or
not the classroom had windows, and determined how these factors influenced
retention rate and academic achievement for first year college freshmen. I moved my
EFL classroom into a reading classroom with more space. Actually, the reading room
was for students to read newspapers and magazines during class break time. It
accommodated at least 50 people and was equipped with 12 large tables and one large
whiteboard, all of which were all movable. Some technology, including a video
projector, a notebook, a PC, and Internet connection, was available in the classroom.
After all, this reading room was widely used not only for students but also for
teachers’ conference presentations, teaching with PowerPoint demonstrations, and
classroom theatre applications. Finally, I decided to present my lesson in the spacious
reading room with multimedia supportive technology, hanging various visual aids on
the walls to introduce the day’s topic and develop positive motivation for learning.
Both the first-floor reading room and the third-floor computer lab were located in the same building; therefore I opened class in the computer lab with students searching information and ideas for their reports or viewing the online dictionary. I knew that young people were very excited and motivated to use computers, and motivation is especially crucial in foreign language development (R. C. Gardner, 1985a). English teachers should use many teaching and learning strategies that support differentiated instruction (King-Shaver & Hunter, 2003), such as multimedia technology or other materials as teaching aids (Jamet & Bohec, 2006).

Second, achieving good classroom management was one of the most difficult tasks I faced. Students typically slept, listened to MP3 players, made excessive noise, or paid no attention to the lesson, often interrupting the processes of my teaching and other students’ learning. My review of a classroom management study by Edwards (1993) revealed that establishing classroom rules is essential to preventing misbehavior.

Reflecting, I realized that I had not exactly presented a clear statement at the beginning of the class regarding what I expected in terms of behavior. I also ignored the need to involve the students in the discussion of class rules and model behavior (Weinstein, Curran, & Tomlinson-Clarke, 2003), which is necessary because the ultimate goal of establishing classroom rules is not to attempt to change or control students but to provide all students with more opportunities for engaging in learning.

Moreover, I was in the habit of presenting discipline policy in negative terms, for example, I announced, “If you sleep in today’s class, you will be at school doing some chores during the weekend as punishment.” An effective teacher builds an affective classroom climate, delivering more encouragement and compliments to
students, and also facilitates maximal effect on motivation development (Graham & Weiner, 1987; C.-S. Wu, 1990). Compliments have the potential to impact students’ behavior and build open two-way communication between teacher and students so students become less hesitant and challenge themselves in the EFL classroom.

I learned a great deal since I started looking closely at what initially occurred in my classroom. I paid more attention to what students learned and their reactions to my lessons. I often tried something different and acquired better organizational skills with each successive lesson; then I evaluated the effectiveness of the changes I made. In the following section I have reflected on my work and illustrated the teaching and learning in my EFL classroom that resulted from changing my approach.

The second phase of reflection. First, after the initial week of observation, I realized that students spent little time on this elective English conversation class. Students believed that if they attended class, they did not need to do anything else to pass this elective course. Students’ negative attitudes toward learning were quite apparent during the first class meeting. For instance, the majority of students came with nothing but their cell phones or MP3 players and showed little enthusiasm for learning English. One student did not work on his assignment but chatted with group members, explaining, “I am waiting for him [another student] to finish his writing because I don’t have a pen.” Finally, I accumulated a supply of stationery, dictionaries, and lots of comprehension resources, such as encyclopedias.

Such preparations not only helped me to execute my teaching more smoothly but also directly changed two of my students’ learning behaviors. I was, in particular, very interested in a senior male student’s reaction. He seldom visited with classmates but slept all the time in this class, but surprisingly, he shared some knowledge and
made a presentation. He told me that he was assigned by the group leader to search for information on pandas. No sooner had he browsed through books, encyclopedias, and posters of pandas, which I had bought from my home library, English and Mandarin Chinese versions, he said he could not stop reading because he was deeply engaged in these interesting materials. I asked him how he used these books for his resources. He said:

Of course, I do not know English, but my partner and I read some Chinese books first. Then we browsed the English versions of some books with pictures, so it was easy to understand the content of the books in English. Anyway, it was interesting, so I shared with my group members. (Researcher journal, 0321)

The above excerpt confirms J. Cummins’s (2000) BICS and CALP theories. He identified two levels of language acquisition and development for language learners. One entails basic interpersonal communicative skills (BICS), which accrue fairly rapidly and give language learners fluent pronunciation and conversational abilities. Another is cognitive academic language proficiency (CALP), which takes the language learners at least 5 to 7 years to develop and involves advanced academic language, so they can read or write academic-related English. J. Cummins (2000) also claimed that an effective language learning program should consider the positive effects the learners’ first language could have on new language acquisition. Numerous studies have supported the use of first language knowledge in an ESL/EFL classroom (Aguilar, Fu, & Jago, 2007; Brooks, 1992; Combier, 2006; McGhie, 2007; Pappamihiel, Nishimata, & Mihai, 2008; Schmidt, 1995; Thoms, Liao, & Szustak, 2005).
Second, I created some posters relating to the topic for the day by me or asked for help from my students who were good at painting, so students knew the context of the day’s topic. Students looked curiously at the posters that I mounted on the wall all over the EFL classroom. It was a positive step toward gaining students’ attention. Once during break time, a female student asked, “Could I see these posters one more time? WOW! It was hard work. You got all of those posters from newspapers, Teacher?” Hearing her comments, I was sure that using visual aids made presentations clearer, more effective, and more memorable for my audience.

Y.-L. Huang (2005) studied ninth-grade junior high school students’ reading comprehension by presenting content-related pictures and discovered positive effects. In my EFL classroom, I also found that most students easily picked up new words by simply reviewing the visual aids without taking time to memorize during each lesson. In summary, visual aids help language teachers to introduce new topics, lead an interactive discussion, and assess learners’ performance (H.-M. Chou, 2006).

Third, I divided the 47 students enrolled in the English Conversation I class into groups and assigned their seats as well. Johnson and Johnson (1994) claimed that placing students into groups will not promote learning effectiveness unless the students realize that they must actively participate in and contribute their efforts to groups in order to develop a sense of group cohesiveness (Johnson & Johnson, 1994). In order to practice effective cooperative learning instruction and establish heterogeneous group composition, I decided that each group should consist of 4 to 5 participants based on their final scores in English from their previous semester. In other words, each group included high, medium, and low achievers to support and encourage one another so that they could grow more confident and take responsibility
for themselves during the learning process (Cumming, 1983). Moreover, gender, academic major, and class level differences were also considered in group composition. Each member also took charge of a different role—team leader, recorder, assistant, and speaker. The team leader was assigned by the teacher and responsible for discussion procedure, including the order of speakers or the task of delivering worksheets, and also kept an eye on group members’ behavior, such as their level of respect for one another while they engaged in the discussion. The recorder kept track of the discussion contents as group members reached agreement on their answers. An assistant took charge of making sure group members understood the learning objectives and helping low-achieving students in academic performance. Finally, the speaker reported the group discussion results in the classroom.

By setting up the groups in this fashion, I reduced off-task talking among students. I also saved time in taking attendance; I could simply look for empty seats instead of calling names. Martine (2004) observed 1st-year teachers’ classroom management; one of the teachers described the difficulties she encountered when students spent time arguing with one another instead of staying on task during group discussion when she had not assigned students’ seats. From Martine’s study, I realized how students’ seating arrangement can help the students participate in group work or independent work as well as help teachers practice instruction (King-Shaver & Hunter, 2003).

Furthermore, my EFL classroom had to be set up into cooperative learning groups of four to five per group at a total of 12 tables. Holliman and Anderson’s study (1986) revealed that students who sat closer to the instructor received more attention and attained higher grades than students who sat in the back of the classroom. In order
to reach every student and provide attention, I let each group sit in various places in the front, middle, or back of the classroom, and I freely moved among the groups while talking. Yes! I devised a way to divide up the students and let them sit with their group members, and it worked well. Everyone sat quietly without chatting, and students were generally well behaved. Effective seating was an essential point in maintaining good student behavior.

Getting to know students was not just a matter of my learning names but of understanding students’ prior experiences with language learning. Bringing students’ voices into the class helped me practice better instruction to fulfill students’ needs.

*The Third Phase of Action Research: Implementation (05/23/2007–05/30/2007)*

The purpose of phase three was to implement the action plan in the cooperative setting. During the first and second phases of action research, I dealt specifically with student behavior and classroom management; however, I also wanted to discover how my teaching affected students’ language learning in my EFL classroom. In this phase I witnessed many amazing examples of student progress in language acquisition and observed how students clarified information gained from their peers. I also observed some scaffolding (Vygotsky, 1930/1978). That is, students were supported through tutoring by more capable peers and a teaching model that emphasized praise, directions, and corrective feedback. As a result, students still developed their own knowledge, solved problems, and completed tasks without guidance or assistance by capable peers or teachers.

Generally speaking, students were unaccustomed to speaking English instead of Chinese in the EFL classroom. Because of the differences in Mandarin Chinese and English characters, the researcher had to devise a system to detail accurate
descriptions of students’ dialogue in their groups; therefore, dialogues in group or class were presented in Mandarin Chinese followed by English translation as well. In the following, a group of female students debated the advantages and disadvantages of giant pandas coming to Taiwan. They talked to one another in Chinese and also wrote their answers on the poster in Chinese. I walked to this group and encouraged them to write their answers in English so that they could practice writing the words they learned in class. The following vignettes were recorded by tape-recorder when I assisted students who were working on English sentence structure.

Students wrote “花錢買竹子” (spend money buying bamboo) on the poster. I spoke with them:

T:  We learned “花” (spend) in English. Do you remember?
S:  (No response from students).
T:  I am going to make some sentences so you may remember.
T:  It took me 3 hours to finish my homework.
T:  The dress cost me 200 NT dollars. And “We s______. . .”
S:  Spend.

(Classroom observation, 0523)

This was an incredible experience. No sooner had I started to formulate the third sentence then one of the group members just pronounced the word spend, which was what I exactly wanted. Students could implement what they learned and put into practice. This incident taught me that students had little experience extending practice so I continued to talk with them.

T:  讓我們完成這句子。 在這句子裡是誰要花錢買竹子？

(Let’s complete the whole sentence. In this sentence, who is going to
spend money buying bamboo for panda?)

S: 我們
(We).

T: 知道如何拼我們這個字嗎?
Do you know how to spell we?

S: W-E.
(Classroom observation, 0523)

We continued to work on the syntax so the latter could present the correct sentence.

T: 可以告訴我主詞 We 應該放哪?是在句首？句中？句尾?
(Can you tell me where to put the subject we? Should it be at the beginning, middle, or the end of the sentence?)

S: 句首。
(It will be at the beginning of the sentence.)

T: That’s right.
(Classroom observation, 0523)

On the poster, I saw that students tried very hard to write a sentence; however, there was no capital at the beginning or period at the end of the sentence. They forgot that spend should always be followed by a duration of time and -ing verb. Finally, students completed their writing task, making their own corrections and receiving guidance from the teacher to correct their answers. This entire learning process influenced the approach I used to guide the next teams prepare for their discussion.

I walked around the classroom and observed the next group of students, four males, who worked on new vocabulary drills. A male student asked me if he could use
his own methods to work on their task instead of what I asked in order to make what
they were doing more meaningful for them in the learning process. Based on
Krashen’s (1981) acquisition-learning hypothesis of second language acquisition, I
understood that language acquisition should concentrate on meaningful interaction
and communication in the target language. Of course, I was glad to see students use a
method with which they felt comfortable in the learning process. The following is
what I saw as the group leader tried to teach vocabulary by showing a picture instead
of telling his group members the answer.

S: 來第一個單字是 endangered.
(The first word we need to know is endangered.)
你們猜猜看 endangered 是什麼意思?”
(What do you think endangered means?)
(Classroom observation, 0523)

He showed his group members a picture in which an animal was killed by
gunshot. He also pronounced this word loudly so others members could repeat with
him. In this group I saw how students took charge of their learning in a way they felt
was fun and useful. In summary, the fundamental obligation of the teacher is to ensure
infusion of students’ voices into classroom so they are motivated to work with team
members to pursue better performance in language.

In this study, cooperative teamwork inspired students to experience the
learning process; meanwhile, it also reduced the teacher’s role as an aid or resource
(Hilt, 1992). In my EFL classroom, students were busy at their tasks. Some were busy
collecting materials and writing their final conclusions. Some helped one another with
vocabulary recitation drills.
Generally speaking, the majority of students were threatened by the idea of learning English in an EFL classroom. They felt uncomfortable because none of them were good at English skills.

According to the affective filter hypothesis (Krashen, 1981) in second-language acquisition theory, once students present negative emotional responses to their environment, such as low self-confidence, low motivation, and a high level of anxiety, then they have trouble with language acquisition. The sooner students develop high motivation to learn English, the quicker language acquisition can take place.


Upon implementation of the action plan, the fourth phase involved evaluating the results of the actions and modifying, ensuring that learning was truly meaningful on a long-term basis. In June, only the 23 students in the 10th- and 11th-grade were left in the researcher’s classroom because the 24 students in the 12th grade had graduated. I reorganized the students into five groups of four and one group of three. Reviewing the researcher journal entries and student interviews, I recognized that students were uninterested in reading English but enjoyed watching. I also remembered that a student described how stressful English was to him, and he basically could recognize no words.

At this point in the study, we had experienced a great deal of communicating within the groups as students discussed and deliberated under the cooperative learning method in our EFL classroom; however, we had less opportunity to speak aloud in English. Therefore, the objective of the lesson during this month pointed toward developing students’ thinking ability and oral skills in English by role-playing two
stories. Role-playing was the last type of cooperative learning activity in this study, designed to place students into active roles (Faulker & Baggett, 2005), create more dialogue (Kim & Kellogg, 2007), and build confidence in developing language skills, (Maxwell, 1997) especially new vocabulary acquisition (Alber & Foil, 2003).

I invited one group of students to volunteer for the first performance; they did not hesitate and were happy to work with me. In order to develop learners’ communication skills, I introduced a moral tale and created a short, easy script for the presenter. The story was about an old donkey, which had fallen into a well, and what the farmer did to save him—shoveling dirt into the well. The role-playing seemed to motivate students to deliberate about what the moral tale meant to them. Although the students made a number of grammatical and spelling errors, their responses to the question illustrated that they understood the story. Nunan (1989) claimed the communicative task is to involve learners in comprehending the meaning of content instead of grammatical skills. In addition, in order to create more opportunities for students to listen to fluent and accurate native English speakers’ tone, I logged into the website at http://upchucky.com/flash-farmer-donkey.html to replay the story.

Generally speaking, students enjoyed delivering the reading content through role-playing in this lesson. I also found that students’ language learning attitudes had improved. Specifically, an 11th-grade student spent much time practicing his script with his group members and me. Because he had difficulty with oral English skills, he devoted himself to practice and made it perfect. He asked me to read his script, so he could follow with clear and correct pronunciation. He even came to my office twice for additional practice before presenting on the stage and sought help from his group leader, who had higher English academic achievement. I saw how they worked
together, writing Chinese words and Chinese phonetic symbols on his script. The lesson seemed interesting to the students as they participated in group discussion and role-playing. In other words, the role-play activity was successful in developing students’ oral skills, interaction, and positive attitudes towards language learning (Krish, 2001).

_The last phase of reflection._ Everything seemed go well during the last phase of action research. The students enjoyed both group and class activities. I also learned from each lesson. Some successful experiences for me during my teaching deserve mentioning. In particular, I improved my questioning technique. At the beginning of the class, the questions I asked in my EFL classroom were commonly met with silence. When I posed questions, I received no feedback from students. I had to call on each student to have further dialogue and discussion about the questions. Research has shown that teachers who take charge of the class and call on each student fail to develop students’ language expansion (Opitz, 1998). In reflecting on my own teaching, I realized that I asked numerous questions about the subject matter, such as vocabulary recognition or reading content. Opitz claimed that teachers should support students with more opportunities to elaborate on their responses and share their thoughts on the topic by asking about the thinking involved and the meaningful context of the subject matter.

In order to improve my questioning technique, I started to print out all questions in advance. By doing that, I knew exactly what I was going to present and was able to lead more dialogue in my EFL classroom. According to Bloom’s taxonomy of knowledge (Bloom, 1956), I also considered designing questions that could evoke students’ concern and prompt them to engage in their learning tasks. For
instance, I reminded myself to avoid asking too many yes/no questions, not “Is a typhoon scary?” but “What happened when the typhoon came and you knew it might cause a flood in your home? What would you do and how would you prevent it?”

With questions like this, student responses included more thinking skills, consistent with Sigel and Saunders’ (1977) research. They claimed that if a teacher posed good inquiry questions, she or he could encourage students actively to anticipate the task at hand as well as improve learning achievement and cognitive development. In analyzing the students’ classroom observation and their worksheets, I found that learning was controlled primarily by the students themselves. They had more time and opportunities to interact in the groups about the content of their reading in their EFL classroom. Moreover, the frequency of interaction with the teacher in class increased as well.

In summary, in this incredible experience I learned from the four phases of action research. In spite of my students’ disappointed and negative learning attitudes, some unexpected outcome occurred in my EFL classroom during this study. I realized that I had to bring students’ voices into my teaching and engage in daily self-reflection. I tried to do something different to improve my teaching and accommodate students’ needs. The results showed a reduction in aggressive behaviors and positive progress, such as eagerness to begin work on tasks cooperatively. The four phases of action research were important resources for addressing the research questions in this study.

Data Collection

In this section, a detailed description of data collection, using appropriate research instruments, such as the responses from individual students’ interviews,
weekly researcher reflective journal, and classroom observation worksheets from both students and teacher, has been developed.

Calhoun (1994) stated that “action research is a formative study of progress; it requires regular and frequent data collection so that changes can be seen” (p. 50). In this study the effects of incorporating cooperative learning instruction in an EFL classroom on student motivation in English by low-achieving students have been investigated. Typically, the purpose of data collection is to help teachers make decisions on actions; thus, the intervals between data collection and comparison with the research questions have been presented below in Table 7. In addition I used appropriate research instruments to gain valuable insights and deepen exploration during the study; these included videotapes of student interaction with me to obtain various insights from the students’ perspectives (Brophy & Good, 1974) and audio-taped interviews with individual students. In particular, research data were collected through the instruments enumerated in the following section.
Table 7

A Summary of Research Data and Collection Intervals

<table>
<thead>
<tr>
<th>Research Questions</th>
<th>Instruments</th>
<th>Collection Interval</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. How will the group investigation (GI) model under the cooperative learning instruction in the EFL classroom help a teacher–researcher to motivate the low-achieving vocational high school students to learn English in Taiwan?</td>
<td>Motivation Strategies for Learning Questionnaire (MSLQ) in Mandarin Chinese (Appendix B Chinese version)</td>
<td>Totaling two times; at the beginning and end of the study by running t-Test pre- and posttest</td>
</tr>
<tr>
<td></td>
<td>Student artifacts</td>
<td>Each English Conversation class throughout 4 months</td>
</tr>
<tr>
<td></td>
<td>Researcher journal</td>
<td>Weekly throughout the study</td>
</tr>
<tr>
<td></td>
<td>Students interviewed orally in Mandarin Chinese (Appendix C)</td>
<td>Totaling three times, at first midterm, at second midterm, and final interview at 4 months</td>
</tr>
<tr>
<td></td>
<td>Classroom observation student interaction in small groups (Appendixes D)</td>
<td>Each English Conversation class throughout 4 months</td>
</tr>
<tr>
<td></td>
<td>Student background survey (Appendix A)</td>
<td>At the beginning of the semester</td>
</tr>
<tr>
<td></td>
<td>Team interaction feedback evaluation (Appendix E)</td>
<td>Each English Conversation class throughout four 4 months</td>
</tr>
<tr>
<td>Research Questions</td>
<td>Instruments</td>
<td>Collection Interval</td>
</tr>
<tr>
<td>-----------------------------------------------------------------------------------</td>
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<tr>
<td>2. What can this teacher–researcher learn from implementing the GI model under the cooperative learning instruction that will improve EFL teaching for the students of the vocational high school in Taiwan?</td>
<td>Motivation Strategies for Learning Questionnaire (MSLQ) in Mandarin Chinese (Appendix B Chinese version)</td>
<td>Totaling two times; at the beginning and end of the study by running t-Test and repeated-measures analysis of variance (pre- and posttest)</td>
</tr>
<tr>
<td></td>
<td>Student background survey (Appendix A)</td>
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<td>Student artifacts</td>
<td>Each English Conversation class throughout 4 months</td>
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<td>Students interviewed orally in Mandarin Chinese (Appendix C)</td>
<td>Totaling three times, at first midterm, at second midterm, and final interview at 4 months</td>
</tr>
<tr>
<td></td>
<td>Classroom observation student interaction in small groups (Appendix D)</td>
<td>Each English Conversation class throughout 4 months</td>
</tr>
</tbody>
</table>
Instruments

Students’ Demographic Survey: February 2007

Patton (1990) claimed that students’ demographic characteristics, such as age, education, routine behaviors, activities, and the like help the researcher gain a comprehensive picture of individual interviewees, information that may be pulled together to illustrate certain key issues. In this study the participants’ demographic data (Appendix A) was of particular interest for their effect on students’ motivation to learn English.

Collecting Student Artifacts: February 13 to June 11, 2007

Tomal (2003) asserted that student artifacts, such as English subject-matter tests, assigned homework materials, and student worksheets, provide rich information for action research study. In other words, evaluating student artifacts provides the researcher with valuable knowledge of areas needing improvement based on certain features of students’ learning performance with the hope of enhancing it. In this study, student artifacts were documented to analyze students’ interest and attitudes toward learning English. Each assignment involved a number of topics collected regularly throughout the study.

Motivated Strategies for Learning Questionnaire (MSLQ): February/June 2007

The Motivated Strategies for Learning Questionnaire (MSLQ) was the primary instrument used to gather quantitative data in this study. The same MSLQ was delivered twice to students—at the beginning and end of the study—to determine whether the pedagogy and supportive environment the researcher put into effect influenced or promoted my students’ learning attitudes and motivation in my English class. Before explaining how I developed the MSLQ in my English course, a brief
introduction of the content of the MSLQ survey as well as its reliability and validity may be helpful.

*The content of the MSLQ survey.* The MSLQ was formally developed for college students by Pintrich et al. (1991) as a measure of motivation to learn. The content of the MSLQ includes three components: values, expectations, and affective concerns. The values component entails intrinsic goal orientation, extrinsic goal orientation, and task value. The expectancy component includes self-efficacy for learning and performance and control of learning beliefs. The affective component covers test anxiety, which deals with how much students worry about tests and how often they become distracted during exams.

In Pintrich’s study sample the internal consistency (Cronbach’s alpha) of the MSLQ survey ranged from .52 to a high of .93 with strong validity and reliability in assessing learners’ motivation to learn. Another study was conducted to calculate the validity and reliability of the Turkish and English versions of MSLQ survey. The results revealed the equivalency of the Turkish version of MSLQ to the English version with the value of Cronbach’s alpha at a high of .86 (Buyukozturk, Akgun, Ozkahveci & Demirel, 2004.) Gilles (1994) delivered the MSLQ survey to 103 college students at Champlain Regional College, Saint Lawrence campus, in Quebec, Canada; his study showed that the scale items positively correlated with each item (Cronbach’s alpha ranging from the weakest at .47 to the highest at .91). Ely (1986) explored the types of motivation of 1st-year university students of Spanish to learn a second language. Cronbach’s alpha for the scale on his study showed a reliability of .086.

In Taiwan, M.-F. Huang (2007) studied 140 students at vocational industrial
high schools, adapting the MSLQ survey and finding Cronbach’s alpha ranging from .78 to .92. C.-Y. Liu’s (2003) study explored motivation to learn among a total of 732 Taiwanese high school students; her study yielded a Cronbach’s alpha ranging from .78 to .92. Gay (1992) stated that an alpha above 0.9 indicates higher reliability and stability for the survey. In summary, the MSLQ scales have been confirmed as valid and sensitive measures; they are widely used in different countries and have been translated into multiple languages (Duncan & McKeachie, 2005). How I developed my MSLQ has been clarified in the following.

Instrument development: MSLQ with a 5-point Likert scale. For this study I developed an MSLQ with a 5-point Likert scale. The responses were strongly agree, agree, undecided, disagree, and strongly disagree. Other investigators have used scales with up to 9 points. In general, most researchers have adapted the 3- to 5-point scale, avoiding a scale above 6 points. Although the 6-point scale facilitates an in-depth analysis of participants’ attitudes, questions may be more difficult to answer with too many scale considerations. Consequently, the 5-point scale has proven to be the most beneficial for evaluating participants’ attitudes and was adopted in the present study. I also developed my MSLQ survey in Mandarin Chinese for use in the EFL context (Appendix B).

In this study, the final MSLQ consisted of 37 questions. The first 31 questions were primarily adopted from the motivation section of the MSLQ developed by Pintrich et al. (1991). The remaining 6 questions were added and revised by my advisor Dr. Kasten to assess motivational beliefs of students learning English. To establish its reliability and validity, a factor analysis of the Chinese version of the MSLQ and Cronbach’s alpha were used to determine the motivation variables, the
degree of model fit, and the latent factor intercorrelations.

In Table 8, the type of motivation clusters show that the first 7 issues all correlated above .40 with the principal component of the same correlation matrix; however, 8 issues correlated above .40 with the next factor, which was unrelated to the first and represented factor 2. Finally, six factors were found and are labeled in Table 9. Items 31, 32, 10, 26, and 16 covered intrinsic motivation, and Cronbach’s alpha = .85; items 5, 7, 11, 13, and 30 covered extrinsic motivation, and Cronbach’s alpha = .61); items 1, 3, 4, 6, 12, 15, 17, and 24, covered task value, and Cronbach’s alpha =.69); items 2, 18, 22, 23, 25, 27, and 29 covered control of learning beliefs, and Cronbach’s alpha = .88; items 20, 32, 33, 34, 35, 36, and 37 covered self-efficacy for learning and performance, and Cronbach’s alpha = .84); items 8, 9, 14, 19, and 28 covered test anxiety, and Cronbach’s alpha = .74. Cronbach’s alpha coefficients for intrinsic motivation, control of learning beliefs, self-efficacy for learning and performance were relatively high in this study. In summary, this questionnaire was suitable to compare students’ characteristics and monitor changes in motivation to learn after the target participants had completed my English course during the study year.

Tomal (2003) recommended that a researcher always pilot her or his questionnaire by pretesting it with a group of similar respondents or experts to establish the validity and reliability of the statements. I developed my Chinese version of the MSLQ survey by inviting two Taiwanese teachers who teach Chinese in 10th to 12th grade levels to read each statement aloud and pay close attention to the wording of the statements to eliminate insensitive words, if any; moreover, I administered the MSLQ survey to two classes of students, including 96 10th- and 11th-grade vocational
high school students. Those students spent approximately 20 to 30 minutes completing this MSLQ survey with no trouble on the statements or scale. After administration of the final version of motivation questionnaire, the scale was subjected to a reliability assessment. Cronbach’s alpha for the scale ranged from .61 to .88.

The type of MSLQ cluster is clarified in Table 8. The 37 items of the MSLQ scale are categorized in Table 9. The final MSLQ appears in Appendix B.
Table 8

Type of Motivation Clusters

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Table 8 (continued). **Type of Motivation Clusters**

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Table 9 **MSLQ Scales**

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<tr>
<th>Motivation scales</th>
<th>Items comprising the scales</th>
<th>Cronbach’s alpha</th>
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<tbody>
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<td>Intrinsic goal orientation</td>
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<tr>
<td>Extrinsic goal orientation</td>
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<tr>
<td>Test Anxiety</td>
<td>8, 9, 14, 19, 28</td>
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*Interview: March/May/June 2007*

The purpose of interviewing is to uncover information that cannot be directly observed, so questions must be asked (Patton, 1990). Effective teaching depends on students’ views and performance; shaping the optimal learning environment for
efficacious teaching and obtaining student feedback are essential (Smith et al., 2004). A tape recorder is a convenient piece of equipment for the researcher to assure the accuracy of information and facilitate later data analysis (Patton, 1990); therefore, I tape-recorded 30-minute interviews with individual students three times during the study—at the beginning, middle, and end of the semester. The interviews were conducted in Mandarin Chinese in order to ensure student understanding of the questions; they were able to respond comfortably and fluently. Open-ended questions were used in this interview (Appendix C); these included, for example, the following:

1. In what way does your English class arouse your curiosity about the subject of English?
2. In what way does your teacher present information that you consider to be very interesting, increasing your motivation to learn English?
3. Which topics or activities in your English class motivate you to complete a task as thoroughly as possible? And why?
4. In what ways do you think the cooperative learning community has helped you learn English?
5. To what degree do you think your group effectively worked together?

In this vein, I obtained in-depth student feedback and gathered their perceptions of their learning experiences in the EFL classroom. The interview location was a quiet, comfortable, and familiar place, free of interruption, such as the reading room that was used for was EFL class.

*Observation Checklists: February to June 2007*

Checklists served as a valuable tool for the researcher to record timely and accurate observations (Tomal, 2003). I observed individual students’ discourse,
specific behaviors, and actions in small-group settings while they were on task from February to June 2006 to evaluate students’ attitudes toward learning English (See Appendixes 5 & 6). During the study, I used the frequency recording method to check such features as the frequency of individual students’ eager acceptance of tasks, sharing, or silence with group members. In duration recording, an observer typically records and makes a tally mark on the checklist each time she or he witnesses a particular behavior (Tomal, 2003).

In order to gain valuable information, I recorded a video of 15 minutes of observation of the students in each group. Each period of 15 minutes of observation focused on one group followed by the second group and so on throughout the study. Because I was engaged in teaching, I invited a student to act as an assistant to help with the video. I evaluated the 13 items on the checklist (Appendix D), including student discourse and actions during small-group work. In addition, in order to gather reliable data that produced valuable findings, I invited two other EFL teachers to assist me for a total of three times in a randomly scheduled arrangement. They visited my EFL classroom to record their findings by using checklist (Appendix D). Both of these professional EFL teachers were 25- to 30-year-old females who were working at the private vocational high school where this study was conducted. One EFL teacher majored in Japanese and had taught English in this school for more than 6 years; the other EFL teacher was a new colleague. She had taught English at the elementary school for 2 years and specialized in teaching English composition at this school.

C.-C. Chang (2005) stated that cooperative teamwork involves individual students taking charge of their jobs and sharing their rewards. Rewards should be given to a successful team, not simply to one or two outstanding group members.
Thus, I distributed a checklist (Appendix E, Chinese version), on which students evaluated one another’s job performance, and collected the data. The checklist questions were evaluated in group discussion. On the checklist, a student might say, “I found that Joe is the most capable group member because he ______.” Or “I found myself_____.” In summary, a total of three resources for data collection—I, two EFL experts’ assistance, and students’ reflection—helped me to acquire relevant data and make valid interpretations of these findings.

Weekly Researcher Journal: February to June 2007

Tomal (2003) indicated that “a journal can be considered as a method of recording the behaviors, feelings, and incidents of subjects” as well as making a detailed analysis (p. 34). I kept a weekly researcher journal in which to keep track of every detail and incident that happened during each observation throughout the study. For instance, my weekly research journal contained my self-reflection in English on each stage of the development of individual students’ learning behaviors, attitudes, and performance. I also recorded every situation I found interesting or of potential use in my investigation, and I reviewed what I had written in order to develop a holistic explanation of my data.

Data Analysis

First, an inductive analysis of the patterns, themes, and categories (Patton, 2002) and descriptive statistics were used in this action research to analyze, organize, and interpret data qualitatively and quantitatively. In this inductive analysis, the researcher coded data, found patterns, labeled themes, and developed category systems by reading through all data repeatedly (Patton, 2002). I used descriptive
statistics to present the data using basic mathematical principles, such as mean and
frequency for each of the responses to each of the items on the questionnaire or survey,
to illustrate this analysis. I have used visual graphics and tables to display action
research information (Tomal, 2003). Moreover, the quantitative t-Test and
repeated-measures analysis of variance for students’ pretest and posttest motivation
questionnaires were analyzed quantitatively.

Data Analysis Process

In this study, the processes of qualitative data analysis followed those of Arhar et al. (2001) in *Action Research for Teachers*, which provided detailed examples and
demonstrations for beginning researchers. The first step of analysis involves taking
the data apart in order to analyze it. The researcher must read though all data
repeatedly. When reading, the researcher must look for certain words, phrases,
sentences, paragraphs, patterns of behaviors, and repeated events (Bogdan & Biklen,
2003; Patton, 2002) in order to develop categories for defining them. After elaborating
categorizing data, the researcher continues to develop a coding system for each
category by giving abbreviation letters or symbols to label and organize data. The
second step of data analysis process is to create a whole picture of the study by
understanding and considering the relationship between each coding category. This
stage of analysis is called *synthesis*. After developing and making sense of these
coding categories, the last step of analysis is to make assertions by asking what was
learned from the study in order to make the right judgment or decision to carry out
action for improving classroom practice.

Certification of Research Bias

Patton (2002) stated that action research engages the people in studying
themselves and trying to solve their own problems; it focuses on a specific local problem or issue (Borg, 1979). As a result, “the design and data collection tends to be more informal” (Patton, 2002, p. 221). In fact, the validity of action research findings has been a critical issue for a long time (Gall, Gall, & Borg, 2003); however, Anderson and Herr (1999) demonstrated the credibility and trustworthiness of action research by examining the criteria of outcome validity, process validity, democratic validity, catalytic validity, and dialogic validity. In outcome validity, action research encourages planning, action, and reflection; therefore, the processes of the action research cycle contribute to outcome validity. Second, the trustworthiness of action research should convey the adequacies of the research process through various phases of the action plan, which also enhance process validity. Third, whether the scenario of an action research is conducted because an administrator is concerned about school-wide change or a teacher is considering implementing a new curriculum program, the researcher consults with and listens to the “multiple voices” of staff, teachers, and students to assess democratic validity under collaborative protocol (p. 592). Fourth, the researcher journal is considered a useful research instrument for the researcher to record the change process and make a detailed analysis (Tomal, 2003). In other words, the reflection process promotes catalytic validity. The last aspect is dialogic validity, which reflects the importance of dialogue with the students to examine the value of the action researcher’s findings and interpretations, such as member checking.

Gall et al. (2003) encouraged the action researcher to evaluate the validity of study results in terms of various criteria; therefore, this researcher not only identified the five criteria noted above and applied them to this study but also considered the
importance of triangulation. In the following section, the validity of triangulation has been presented.

*Validating the Accuracy of Findings*

In a study, verifying data and clarifying the analysis of findings are important; thus, when using multiple sources of data, triangulation increases the validity and reliability of a study (Arhar et al., 2001). Triangulation can offer possible ways to transform data by crosschecking sources and interpretation (Patton, 1990). To triangulate with people, I invited experts to act as mentors to provide validity and reliability to the study. I received assistance during the process of data analysis in this study. One expert, Dr. Chen, a professor in the Graduate School and Department of English Education at National Taipei University of Education in Taiwan assisted me with developing the category by using analysis, synthesis, and assertion skills during the coding process. The other expert, Dr. Kasten, a professor in the Department of Teaching Leadership and Curriculum Studies at Kent State University, provided critical perspectives and suggestions when I reviewed my data and findings. Another was a male graduate assistant, who interpreted and analyzed raw data in the quantitative segment of this study. To triangulate with methods, I used observation, interviews, and document techniques to make sense of my findings and interpretations. To triangulate with theories, I analyzed the data based on the constructivist perspective and second language learning theory in order to make sense of the interpretations. Overall, the triangulation strategy provided a holistic understanding of the validity and reliability of data evaluation in this study (Patton, 1990). Triangulation provided a way to crosscheck data sources and to conduct a search for clarity on the perspectives I wanted to interpret from the data. The data recording
procedures have been described in detail in the following section.

Data Recording Procedures

Qualitative Approach

This study mainly implemented the qualitative action research methodology, supplemented by quantitative elements. In the qualitative approach, participants’ classroom observation checklists, the interpretation of student interviews, computerized versions of student artifacts, and analysis of the weekly researcher journal were gathered. Certain categories or patterns emerged from analyzing the data and reporting the findings.

Observation checklists. Observation was one of the common ways for this researcher to provide more practical and richer information for the action research study (Tomal, 2003). I noted individual students’ behaviors on the observation checklists, making a tally mark and computing the mean score so that accurate numerical responses were clarified. For example, half the students worked on an assignment for another class or slept in the EFL classroom. The observation checklists were used each time the researcher reviewed the video recording and completed the observation checklists. In addition, two EFL teachers also helped fill out the observation checklists when they occasionally visited the researcher’s class with totally three times. Finally, I identified the most frequent behaviors and then made analysis and interpretation.

Interview. Patton (1990) claimed that the strategies for analyzing interviews should begin with individual case analysis, then cross-case analysis. I used an inductive approach to develop coding categories by reading through individual students’ interview notes repeatedly, and certain patterns presented to inform my
inquiry to the study. The inductive approach provides a systemic set of procedures for analyzing qualitative data that can produce reliable and valid findings (Thomas, 2006). I paid considerable attention to analyzing different answers from different people to common questions throughout this study. Of course, the audiotapes recorded participants’ ideas at the time of each interview, providing useful tools for data analysis. I listened to the tapes and transcribed and edited them into a word processor. I color-coded (Patton, 1990) different ideas or concepts from each item of oral response, developed categories to obtain more detailed information, and described the results of the study accurately. In addition I revisited data a month later to help me see things in a new light. Revisiting data was a valuable way to discover information that may not have appeared the first time (Arhar et al., 2001). Finally, I used the member checking technique which is a strategy of qualitative data analysis. The number checking procedure is for the researcher to check the findings with participants in order to validate the accuracy of the findings (Creswell, 2002). In this study, I summarized what I found through interview or observation; I took the interpretation back to participants to verify the contents as well (Arhar et al., 2001).

Collecting student artifacts. Artifacts contributed by students presented a useful and efficient way to assess their academic performance. Students were required to make a presentation to convey their discussion results or their worksheets. Some studies I reviewed identified the common characteristics of underachievers; for example, they dislike completing assignments (S.-Y. Kuo, 1995; P.-J. Kuo et al., 1995; McLaughlin & Vacha, 1992). I, therefore, analyzed student artifacts, including their record of completing homework or worksheets. Low-achieving learners in English academic performance, the participants were evaluated on the frequency of writing in
English instead of on the number of grammatical errors appearing in their papers. Student artifacts helped the researcher note differences or improvement in students’ attitudes toward learning and toward their tasks from the beginning to the end of the semester.

*Weekly researcher journal.* I reread my journal entries and reflected on them with a mentor, Dr. Chen, who also assisted me in data analysis and coding development, to look for some evidence of more positive student attitudes developing during their English learning process.

**Quantitative Approach**

In the quantitative approach, the results of the t-Test on students’ pretest and posttest motivation questionnaires and repeated-measures analysis of variance for comparing all subjects measured during different testing times were analyzed quantitatively.

*Motivated Strategies for Learning Questionnaire (MSLQ)*. Data collected from questionnaires were analyzed with the Statistical Package for Social Science (SPSS) for Windows 10, using the t-Test to ascertain the differences. Generally speaking, a t-Test is a statistical test that compares whether the mean of two groups is statistically different from each other (Myers & Well, 2003). In this study, the t-Test can be used to determine differences in students’ motivation to learn English and performance before and after the instruction. In the first step, data were computed according to participants’ responses to 37 items. Mean and standard deviation were presented by running the t-Test. In this way, the researcher analyzed the results to determine any significant differences with respect to survey responses before and after instruction. In addition, the repeated-measures analysis of variance for comparing all features
measured, including gender, class grades, and academic majors, in different testing times were conducted as well. To obtain an unbiased estimate to analyze pretest and posttest data, a repeated-measures analysis of variance from the $F$-test for the treatment by time interaction provided appropriate effect (Brogan & Kutner, 1980).

Limitations of the Study

As qualitative action research, the current study presents the typical limitations. In this study, the target population ($n = 47$) was restricted to one private vocational high school in Keelung in northern Taiwan. Consequently, the findings of the study do not generalize or may not truly represent the entire population of vocational high school students in Taiwan or other educational and cultural contexts, but results are credible when multiple data sources suggest similar results and trends. For instance, in this study, the culture of learning among the vocational high school students should be considered, such as students’ study habits, work ethic, value of education, and motivation for education can be examined. Moreover, students’ self-evaluation survey is always a limitation, but over time and with many students is a credible source.

In addition, Tomal (2003) asserted that researcher bias may affect the quality of the data and interpretation in conducting action research. The researcher was also a faculty member at the school where this study was administered; in this case, the faculty member was the teacher of the participants. When conducting action research and interpreting data, the researcher must always try to remain neutral and objective (Tomal). Although the study has some limitations, it presents an important contribution. This study reduced the gap in language teachers’ taking action and developing appropriate language learning environments, affecting participants’ motivation to learn English in an EFL classroom.
Chapter Summary

Overall, the methodology section provided extensive information and explanation, including a clarification of action research as an appropriate methodology for this study; the setting was delineated as well as the profile of participants. A total of 47 vocational high school students participated in this study. They were 19 (40%) females and 28 (60%) males majoring in different subjects—6 (12%) in information technology, 9 (20%) in infant and child care, and 32 (68%) in culinary arts—and enrolled in different grades—13 (28%) in 10th grade, 10 (21%) in 11th grade, and 24 (51%) in 12th grade. They ranged in age from 16 to 18 years old. According to their Junior High and College Entrance Examination, they were labeled as English learners in school. A large percentage of the students admitted that they were uninterested in learning English. At home, these students experienced limited interaction with their parents because the majority of parents experienced time constraints in their occupations and had no time to supervise their children at home or at school. Moreover, surveying students’ background and interviewing them revealed that members of 42 (89%) families did not have basic English abilities.

In addition, four phases of action research illustrated the whole vision of students’ learning and my self-reflection in the EFL context. At the beginning of the study, students showed no enthusiasm for learning English until I brought their voices into my teaching and self-reflected at each stage of the lessons. I tried to do something different to help me practice better instruction to accommodate students’ needs in my EFL classroom. I learned a great deal from engaging in the four phases of action research, an important resource for addressing the research questions in this study. Figure 5 illustrated the research procedure. Appendix F provided a sample lesson plan,
linking the time schedule to the propositions and the principal theory. Finally, the researcher discussed in this chapter the use of qualitative data coding as well as quantitative statistical analysis, such as the t-Test and repeated-measures analysis of variance, which were used to synthesize the research findings.
CHAPTER IV
FINDINGS AND DISCUSSION

In this chapter, I have presented the results of action research on the effects of cooperative learning instruction informed by the Group Investigation (GI) approach (Sharan & Sharan, 1992). My intent was to increase low-achieving vocational learners’ motivation to learn English in a high school EFL classroom. In the opening section, I have summarized the research questions and sources of each of the findings in a Table (see Table 10). I have also presented results of the investigation of each research question; first are the results of the qualitative data and then the results of the quantitative statistical analysis in the students’ pre- and post-Motivation Strategies for Learning Questionnaire (MSLQ) surveys, followed by a discussion of these findings with attention to those of previous studies in this field.

Table 10
Research Questions, Research Findings, and Instruments

<table>
<thead>
<tr>
<th>Researcher questions 1:</th>
<th>Research Findings</th>
<th>Instruments</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Students show fewer avoidance behaviors (e.g., sleeping, playing MP3 etc.) instead of learning and teaching took place as a result of students’ working in small groups.</td>
<td>A. t-Test Pre- and Posttest MSLQ</td>
</tr>
</tbody>
</table>
Table 10 (continued). *Research Questions, Research Findings, and Instruments*

<table>
<thead>
<tr>
<th>Researcher questions 1:</th>
<th>Instruments</th>
</tr>
</thead>
<tbody>
<tr>
<td>How will the group investigation (GI) model under the cooperative learning instruction in the EFL classroom help a teacher–researcher to motivation the low-achieving vocational high school students to learn English in Taiwan?</td>
<td>D. Researcher journal</td>
</tr>
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<td></td>
<td>E. Students background survey</td>
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<tr>
<td></td>
<td>F. Team interaction feedback evaluation</td>
</tr>
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<td></td>
<td>(student use)</td>
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</table>

2. Diverse teaching contexts and supplemental materials facilitate the development of intrinsic motivation.  

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<table>
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<tr>
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<tbody>
<tr>
<td></td>
<td>A. <em>t-Test</em> Pre- and Posttest MSLQ</td>
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<tr>
<td></td>
<td>B. Student Interview</td>
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<tr>
<td></td>
<td>C. Classroom observation student interaction in small group (teacher use)</td>
</tr>
</tbody>
</table>

3. The effects of cooperative learning supported by H. Gardner’s (1993) theory of multiple intelligences (MI) facilitated the development of students’ self-confidence in their own ability to learn and led to positive communication in English.  

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<td></td>
<td>D. Researcher journal</td>
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<td>E. Students artifacts</td>
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Research Questions, Research Findings, and Instruments

<table>
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<tr>
<td><strong>Researcher questions 1:</strong></td>
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<tr>
<td>How will the group investigation (GI) model under the cooperative learning</td>
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<td>instruction in the EFL classroom help a teacher–researcher to motivation the</td>
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<tr>
<td>low-achieving vocational high school students to learn English in Taiwan?</td>
<td></td>
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<tr>
<td>4. The use of native language</td>
<td>A. Classroom observation</td>
</tr>
<tr>
<td>increases students’ interaction</td>
<td>B. Student artifacts</td>
</tr>
<tr>
<td>during the oral presentation performance.</td>
<td></td>
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<tr>
<td>A. Classroom observation</td>
<td></td>
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<tr>
<td>B. Student artifacts</td>
<td></td>
</tr>
<tr>
<td>C. Classroom observation student interaction in small group (teacher use)</td>
<td></td>
</tr>
<tr>
<td>D. Students artifacts</td>
<td></td>
</tr>
</tbody>
</table>

| Research question 2:                                                             |                                    |
| What can this teacher–researcher learn from implementing the GI model under the |                                    |
| cooperative learning instruction that will improve EFL teaching for the students  |                                    |
| of the vocational high school in Taiwan?                                        |                                    |
| 1. Teachers recognize the cultural values that may help practice effective       | A. t-Test Pre- and Posttest MSLQ    |
| pedagogy instruction and grouping in an EFL classroom.                           | B. Student Interview               |
|                                                                                | C. Classroom observation student    |
|                                                                                | interaction in small group (teacher |
|                                                                                | use)                               |
|                                                                                | D. Students artifacts               |
Research question 2:
What can this teacher–researcher learn from implementing the GI model under the cooperative learning instruction that will improve EFL teaching for the students of the vocational high school in Taiwan?

<table>
<thead>
<tr>
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<th>Instruments</th>
</tr>
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<tbody>
<tr>
<td>2. The recognition of language learners’ difficulties and the support of effective language learning strategies facilitate the building of students’ (a) self-efficacy for learning outcomes and (b) second or foreign language acquisition.</td>
<td>A. t-Test Pre- and Posttest MSLQ</td>
</tr>
<tr>
<td></td>
<td>B. Classroom observation student interaction in small group (teacher use)</td>
</tr>
<tr>
<td></td>
<td>C. Student background survey</td>
</tr>
<tr>
<td>3. The importance of encouraging students to maintain positive attitudes about making mistakes and support one another’s learning.</td>
<td>A. Student Interview</td>
</tr>
<tr>
<td></td>
<td>B. Student Interview</td>
</tr>
<tr>
<td>4. Computer technology as a medium for the teacher when designing an EFL classroom allows students to be immersed in variety of target language contexts.</td>
<td>A. t-Test Pre- and Posttest MSLQ</td>
</tr>
<tr>
<td></td>
<td>B. Student Interview</td>
</tr>
<tr>
<td></td>
<td>C. Student background survey</td>
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</table>
Table 10 (continued).  

Research Questions, Research Findings, and Instruments

<table>
<thead>
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<th>Instruments</th>
</tr>
</thead>
<tbody>
<tr>
<td>5. The language teacher’s taking into account gender, class levels, and academic majors may support learning in cooperative settings.</td>
<td>(1) <em>Repeated-measures analysis of variance</em> Pre- and Posttest MSLQ</td>
</tr>
<tr>
<td></td>
<td>(2) Student Interview</td>
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</tbody>
</table>

Results and Discussion of Research Question 1

The first research question was “How will the group investigation (GI) model under the cooperative learning instruction in the EFL classroom help a teacher–researcher to motivate the low-achieving vocational high school students to learn English in Taiwan?”

Finding 1

In response to Question 1 (How will the group investigation (GI) model under the cooperative learning instruction in the EFL classroom help a teacher–researcher to motivate the low-achieving vocational high school students to learn English in Taiwan?), this study revealed that students showed fewer avoidance behaviors (e.g., sleeping, playing MP3 etc.) instead, learning and teaching took place as a result of students’ working in small groups. Below I have detailed my findings, first qualitatively and then quantitatively.
Qualitative Results

In this study, I applied the cooperative learning instruction of the group investigation model elaborated initially by Thelen (1981) and expanded by Sharan and Sharan (1992) to develop the cooperative classroom. The following steps were implemented: (a) form small groups, (b) practice group investigation, and (c) demonstrate through group presentation the increase in participants’ motivation to learn English as a subject in their EFL classroom.

Analyzing students’ responses to cooperative teamwork by conducting student interview three times in March, May, and June, I found that students overwhelmingly agreed that they preferred to work in a group instead of working alone. In interviews, students were asked, “Do you think you have learned something from your group members?” The results of the first, second, and third interviews showed, respectively, that 18 of 47 students (38%), 38 of 47 (81%) students, and 21 of 23 (91%) students agreed. The findings have been presented in graphic form in Figure 6. I continually asked students to explain what they learned from group mates in both the teacher-selected heterogeneous and the interest- and familiarity-based heterogeneous groups. First, they stated that group mates were responsible for the assignment of jobs so they could complete work quickly and share knowledge. Second, students commented on peer editing, especially the group leaders’ assistance in the final reviewing of each group mate’s worksheet. Peer editing facilitated group tasks. Finally, they mentioned that positive support from group mates eliminated feelings of isolation and encouraged them to get help from one another.
Students who agreed that they learned something from group mates in first interview

- Agree: 38%
- Disagree: 62%

Students who agreed that they learned something from group mates in second interview

- Agree: 81%
- Disagree: 19%

Students who agreed that they learned something from group mates in third interview

- Agree: 91%
- Disagree: 9%

Figure 6. Student interview regarding participants’ responses to cooperative group work.

During the student interview, students were asked whether they considered the group an effective means to work together. The results of the first, second, and third interviews showed, respectively, that 16 of 47 (34%) students, 20 of 47 (43%) students, and 21 of 23 (91%) students agreed. The results have been presented in graphic form in Figure 7. Similar results derived from the classroom observation also
showed that group coherence occurred when students faced challenging and interesting tasks. I was especially interested in one group because this group has presented negative learning behaviors, such as chatting to each other, working on off-task assignments, or having low attendance rates. However, I was surprised to see how learning happened while they conducted an activity that required students to design a panda’s habitat and apply their knowledge of giant pandas by using computer technology. What follows is an excerpt from a dialogue held by Su and his group mates when they tried to figure out the computer software needed to design a panda’s habitat and entered the website address without success (All names are pseudonyms):

Su.: 我知道我現在後面站了一堆人正在看我。我不知道我做的對不對，我不玩了這讓我好緊張。
(I know everyone is standing behind me and watching. I am not sure how to proceed. I am going to quit. It makes me nervous.)

Chang: 等一下！讓我來啦。[張同學正在複製網站的地址並用滑鼠按收尋。]
(Wait! Let me try. [He used the arrow cursor to highlight the whole web address and pasted it into the search box. Then, he took the mouse and clicked on the word search.])

Chang: 好啦！找到了。所以接下來要怎麼做…我們去問李同學。[李同學每天放學在家的活動就是玩電動。他算是我們這組的電腦王。]
(OK! Here we are. So what we should do next? Let’s ask Lee. [Lee played computer games at home every day after school. He was considered to be a computer wiz in this group.])

(Classroom observation, 0523)
Students who agreed that peer-group work was effective in first interview

- Disagree: 66%
- Agree: 34%

Students who agreed that peer-group work was effective in second interview

- Disagree: 61%
- Agree: 39%

Students who agreed that peer-group work was effective in third interview

- Disagree: 9%
- Agree: 91%

Figure 7. Student interview regarding participants’ responses on the effectiveness of peer-group work.

In the Team Interaction Feedback Evaluation form (see Appendix E), students were asked to rate themselves on their level of satisfaction with their performance in their group each time they did the team work. In the results the students did not present clear explanations but simply wrote “yes” and “No” instead. In order to have an in-depth explanation from the students, I interviewed them and the results have
shown graphically in Figure 8 from the three rounds of the student interviews. In the first interview, 22 of 47 (47%) students stated, “No, I was not satisfied with what I did to help my group work.” Twelve of 47 (25%) students believed they had done their best in group work. Thirteen of 23 (28%) students asserted that they had made exceptional contributions to help their group. The results also showed that in the second interview, 19 of 47 (40%) students were dissatisfied with themselves in group work. Nineteen of 47 (41%) students reflected that they had done their best in group work, and 9 of 23 (19%) students were satisfied with their work in the group.

Surprisingly, in the third interview, 21 of 23 (91%) students humbly stated that they did only what was required to share knowledge and complete the group task: They did not want to take all the credit and so minimized their contributions. The remaining students were unable to participate in the third interview because they had graduated and missed the two final class meetings.
Students who were satisfied with what they had done in groups in first interview

- 28% No
- 47% Do their best
- 25% Yes

Students who were satisfied with what they had done in groups in second interview

- 19% No
- 40% Do their best
- 41% Yes

Students who were satisfied with what they had done in groups in third interview

- 40% No
- 60% Do their best

Figure 8. Student interview regarding participants’ responses to self-evaluation.

In the first and second interviews the participants might have considered their English abilities were impossible to improve. The students were afraid to take any responsibility for the tasks, and they had no idea how to help one another. In particular participants’ responses about their prior English learning experience
revealed that only four (9%) participants really enjoyed learning English, but 39 (82%) acknowledged that they felt terrible about it. When I analyzed students’ background surveys on English subject, I found that the majority of them presented lower English academic performance in school; however, once students experienced cooperative learning instruction several times, they felt more confident during the whole process of group work. Hence, in the third interview, all participants were satisfied with what they had done and believed that they had put forth their best effort, doing their share of the work. In summary, the results indicated that learning and teaching occurred when students participated in cooperative learning in the EFL context.

**Quantitative Results: Results of t-Test**

Motivation Strategies for Learning Questionnaire (MSLQ). A review of C.-L. Wang’s (2005) study revealed a higher motivation in students when working in a group. According to Myers and Well’s (2003) definition of t-Test, it is a data analysis procedure that is used for comparison the mean of two groups. In my study the t-Test performed on students’ responses to the Motivation Strategies for Learning Questionnaire (MSLQ) see Appendix B, shown in Table 11, yielded 108.06 (SD = 25.84) on the pretest and 120.71 (SD = 23.16) on the posttest. This result illustrated that students were more interested in group work after engaging in cooperative learning. Significant improvement in motivation occurred in my EFL classroom with \( t(46) = -4.25, p = .000 \). The \( p \)-value as low as .000 indicted a significant difference.
Table 11

*t-Test Results of All 37 Questions on Pretest and Posttest of MSLQ*

<table>
<thead>
<tr>
<th>Total Motivation</th>
<th>N</th>
<th>df(1.46)</th>
<th>M</th>
<th>SD</th>
<th>t</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pretest</td>
<td>47</td>
<td>46</td>
<td>108.06</td>
<td>25.84</td>
<td>-4.25</td>
<td>.000***</td>
</tr>
<tr>
<td>Posttest</td>
<td>47</td>
<td>46</td>
<td>120.72</td>
<td>23.16</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*p< .05, **p<.001, ***p<.000.

Discussion of Research Finding 1

Vygotsky (1930/1978) articulated his concept of the zone of proximal development, emphasizing that a person’s learning ability can be developed if capable peers or adults provide appropriate assistance. Cooperative learning instruction requires students to work in groups to learn from and teach one another. As group mates work together on a task, high-achieving learners acting as tutors help other group mates to clarify the course materials, stimulating group mates to contribute their ideas and solve problems. As a result, this finding confirms Powell’s (2002) study, illustrating the various roles students play while they work on an assigned task in cooperative settings. She described some learners as managers who keep group members working effectively. Others are tutors offering guidance, and still others inquire into the tasks.

Working in groups also facilitates the development of learners’ social interaction skills. They negotiate with one another to determine that role each will play in completing their tasks. For instance, one student may focus on drawing, while others browse encyclopedias or use an on-line dictionary; they finally shared ideas
within the group. Individual accountability is an ingredient in completing tasks and creating group coherence. During group discussion, they also learn to negotiate and appreciate one another’s differences, especially when discussion yields a variety of answers. Not only teaching and learning happens among group members but social interaction as well.

In addition, small groups also help students to reflect themselves and develop better learning behaviors (Ewald, 2004). Analyzing the students’ self-evaluation surveys from the Team Interaction Feedback Evaluation form (see Appendix E) indicates that students realize some off-task behaviors such as sleeping in class irritate the group. Finally, students expect themselves to present better learning habits and behaviors while working together in small work so they learn more. In summary, group coherence increases because individual students devote themselves to groups supporting, sharing, and learning from one another to work on their tasks. This coherence in the classroom environment is consistent with the ideal EFL learning community, which provides mutual partnerships for effective learning.

Finding 2:

In response to Question 1 (How will the group investigation (GI) model under the cooperative learning instruction in the EFL classroom help a teacher–researcher to motivate the low-achieving vocational high school students to learn English in Taiwan?), this study shows that diverse teaching contexts and supplemental materials facilitate the development of intrinsic motivation, qualitative and quantitative evidence for which follows.

Qualitative Results

Diverse teaching contexts and supplemental materials. In the second step of
cooperative learning, the groups required a greater amount of time to carry out their investigation, gathering information, clarifying ideas, synthesizing data, and drawing conclusions. In contrast to the traditional EFL classroom in Taiwan, the teacher–researcher deemphasized pencil-and-paper instruction unlike traditional teachers, who lecture and have students take notes.

A study by S.-C. Chu et al. (1997) revealed that the majority of Taiwanese students complain that language class is boring; moreover, the textbook is difficult and does not arouse interest or capture students’ attention. In analyzing the students’ pre- and post-MSLQ surveys, I found that the students disliked English but were willing to engage in a learning task if the course aroused their interest. S.-C. Chu’s study and my research findings influenced me to design a language curriculum that piqued students’ curiosity and interests. Pae (2008) asserted that intrinsic motivation is the main factor affecting learners’ self-confidence and positive attitudes about learning a second language. Thus, an effective teacher should incorporate intrinsic rewards into the classroom to facilitate students’ academic engagement (Bowman, 2007).

In addition, I interviewed students about the topics I presented in my EFL classroom to discover which ones they found most satisfying. Thirty-three (70%) students responded positively to the panda topic; 10 (21%) were satisfied with the global warming issue, and four (9%) enjoyed listening to and role-playing moral tales. In fact, Sturm (2003) surveyed 2000 participants who ranged in age from two to 18 years old at the state library of North Carolina and found that student preferences in books favored animals, science, sports, and literature as preferred subjects.

With this in mind, I developed my environmental-awareness lessons for my
EFL classroom around interesting topics, comprehensive readings, and information technology to be used in the cooperative learning instruction via the group investigation model. For instance, we spent a total of 4 weeks introducing and exploring the panda topic. At the beginning of the unit, I played a YouTube video as an aid to reinforce the material that would be learned and discussed. Each video ran 1 to 2 minutes, totaling 5 to 10 minutes. Then I gave a brief lecture, posed questions, and for 15 to 20 minutes explained the task. Then I designed several interesting and challenging activities to raise students’ intrinsic motivation so they felt that the task was worth their effort to pursue. Finally, each group presented a brief conclusion, in which members conveyed their findings and concluded the cooperative learning experience.

In fact, students became a little more attentive when the lesson took the form of a presentation resembling PowerPoint, that is, with video instead of reading content. The results derived from two EFL teacher classroom observations. They commented that students’ avoidance behaviors had been improved from when the majority of students were listening to MP3 and sleeping to now, with fewer of them listening to MP3 and without any of them sleeping in the class. At the same time, I offered a broad choice of reading materials, such as encyclopedias, textbooks, children’s picture books, posters, and newspaper articles about pandas, to supplement the instructional material. Reviewing the films and reading encyclopedias not only aroused students’ curiosity but also developed their knowledge about pandas. They knew the difference between the sound of a panda cub and an adult panda, how the female panda delivers her young, what country is the main distribution point of pandas, and why pandas are in danger of extinction. Even the panda debates, which they had never experienced,
were also successfully accomplished in the cooperative settings.

**Quantitative Results: t-Test**

*Intrinsic goal orientation.* The statistical results shown in Table 12 in analyzing the students’ pre- and post-MSLQ surveys indicate that students’ intrinsic motivation in posttest scores was significantly higher, $M$ (17.85), than the pretest, $M$ (15.83) with a 2.02 difference. A significant improvement occurred for the students in their intrinsic motivation to learn a language, $t$ (46) = -3.68, $p$ = .001. A significant difference is shown by the $p$-value as low as .001. In other words students significantly increase their intrinsic motivation in cooperative settings.

**Table 12**

*Results of t-Test on Pretest and Posttest on Intrinsic Goal Orientation of MSLQ*

<table>
<thead>
<tr>
<th>Intrinsic Motivation</th>
<th>N</th>
<th>df(1.46)</th>
<th>$M$</th>
<th>$SD$</th>
<th>$t$</th>
<th>$p$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pretest</td>
<td>47</td>
<td>46</td>
<td>15.83</td>
<td>4.80</td>
<td>-3.68</td>
<td>.001**</td>
</tr>
<tr>
<td>Posttest</td>
<td>47</td>
<td>46</td>
<td>17.85</td>
<td>4.45</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*p < .05, **p < .001, ***p < .000.

The results also clarified the need for the teacher to be aware of the power of intrinsic motivation when selecting tasks that arouse learners’ curiosity so they desire to learn about a particular topic (Kohn, 1991). For instance, during the second round of student interviews, I had a conversation with an 11th-grade student, who said:

I don’t like English. Learning English is not necessary for me in my future job. I want to be a chef who works in a kitchen after graduation; however, I am interested in the global warming issue, which was presented on YouTube
by the teacher. I did some research and am reading some news because I want to know more about what happens if we ignore this issue.

(Interview, 0509)

I was encouraged to see students present positive attitudes toward learning, showing that they had increased intrinsic motivation to engage in appropriate tasks selected and designed by the teacher.

Discussion of Research Finding 2

Findings in this study and in Dart et al. (1998) show similar results. In their study, students expected teachers to make the school subject interesting and relate it to their reality. Peterson and Davis (2008) motivated students’ academic engagement by designing enjoyable learning activities in a literacy program. Their findings also show that interesting learning activities decrease students’ off-task talk. On the contrary, students are eager to complete their assignments in a limited time. Teachers should design a curriculum that arouses students’ interest and motivates them to engage in active participation. This is important because motivation reinforces efficacious learning (Gan, 2004). F.-C. Lin (2004) also stressed that the teacher should focus on diverse technical programs, such as games, songs, and role-playing exercises, and reducing pressure on students involved in the process of learning a new language. In summary, diverse teaching contexts and supplemental materials enhance a supportive language-learning environment.

Finding 3

In response to Question 1 (How will the group investigation (GI) model under the cooperative learning instruction in the EFL classroom help a teacher–researcher to motivate the low-achieving vocational high school students to learn English in
Taiwan?), this study shows that the effects of cooperative learning supported by H. Gardner’s (1993) theory of multiple intelligences (MI) facilitated the development of students’ self-confidence in their own ability to learn and led to positive communication in English as shown quantitatively and qualitatively below.

**Qualitative Results**

*The incorporation of MI theory.* The problem of the freeloader among group mates hinders cooperative learning (Slavin, 1995). In order to solve the freeloader problem, different levels of tasks must be designed to challenge both high- and low-achievers during task engagement. One of the easiest tasks I assigned my students involved using colored paper to represent which parts of the panda’s body were black and white. In my researcher journal, I particularly recorded how students elaborated their artifacts with a creative design. I observed the work of the students and had a conversation with them. I realized that they liked to do panda artwork, not because they were good at drawing or painting skills but because they felt the task was fun and helped build their confidence. One student described how she enjoyed working on panda artwork:

> I like designing panda artwork with colored paper because I don’t like to work on complicated tasks. I don’t like working on vocabulary recognition or extended research or investigation of a topic because all these activities are difficult for me. I am not good at English, but I can contribute my little ability by painting or drawing. I feel great about that! (Researcher Journal, 0606)

The results of incorporating artwork into language learning showed that students did not hesitate but eagerly participated in their tasks. The theoretical framework behind this teaching approach was H. Gardner’s (1993) multiple intelligence theory.
Intelligences (MI). Rose’s (2004) research showed that the application of knowledge about multiple intelligences promotes vocabulary improvement through visual stimuli to enhance long-term memory for students who do not present much interest in learning about words in an English class.

In addition, Honigsfeld and Dunn (2003) investigated the learning styles of high school males and females and found that both male and female EFL students in the USA prefer learning activities involving oral or written language, graphs, puzzles, and cooperative tasks. Therefore, I integrated different subjects, such as art, music, computer science, and sports, into language study to develop curricular activities to enhance learners’ performance in the EFL classroom. For instance, I distributed copies of a music worksheet with some words omitted. Students were required to listen to the music, playing it repeatedly until they were able to fill in the missing lyrics. The goal was not only increasing students’ interest but also enhancing their listening skills by playing a familiar melody.

As a teacher, I had to know whether students had enough knowledge after the panda lesson had been explored. Moreover, because of student interest in technology, I conducted a quiz using computer technology. Specifically, at the end of panda lesson, students were required to examine their knowledge of the panda and determine whether they had enough expertise to design a successful natural panda habitat in a zoo environment.

*Positive communication in English.* Students have more opportunities to interact and communicate in English in the cooperative learning environment. Even though my students were unable to deepen their understanding of the English language and use it effectively, they presented positive behaviors and communicated more in
English by studying EFL in a cooperative setting according to analysis of students’ artifacts and their behaviors in classroom observation. Here, I considered communication broadly: Communication skills were not only oral but also included other modes, such as listening, reading, and writing (Cetinkaya, 2005). In observing students learning language, I found that they not only enjoy watching YouTube films, but they can also develop their listening skills because the dialogue is in English. In addition, the students felt comfortable, paid more attention, and engaged in listening tasks, which required them to listen to an English song and fill in the blanks with appropriate lyrics. In order to complete the task successfully, I found that most students played this song repeatedly until they could insert the correct words.

Moreover, I found that their English vocabulary increased in their writing according to analysis of students’ artifacts, such as worksheet. Grammatical errors still appeared in their writing, but students were more eager to write English by asking the teacher or using an online dictionary. In summary, these findings are consistent with Confucian educational philosophy. The great Chinese scholar asserted that individuals possess their own potential and advocated education for all without discrimination (Legge, 1861/1966). This view also inspired me as a teacher developing appropriate curricula to support effective learning for all.

Quantitative Results: t-Test

Control of learning beliefs. The statistical results shown in Table 13 in analyzing the students’ pre- and post-MSLQ surveys indicate that students’ posttest scores on confidence in their own ability to learn are significantly higher, $M$ (26.44), than on the pretest, $M$ (23.88), with a difference of 2.56. A significant difference, $t$ (46) = -3.56, $p = 001$ ($p < .05$), shows that they significantly increased their scores in their
confidence in their own ability to learn.

Table 13

Results of t-Test on Pretest and Posttest of Control of Learning Belief of MSLQ

<table>
<thead>
<tr>
<th>Self-confidence in ability to learn</th>
<th>N</th>
<th>df (1,46)</th>
<th>M</th>
<th>SD</th>
<th>t</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pretest</td>
<td>47</td>
<td>46</td>
<td>23.64</td>
<td>6.42</td>
<td>-3.56</td>
<td>.001**</td>
</tr>
<tr>
<td>Posttest</td>
<td>47</td>
<td>46</td>
<td>26.28</td>
<td>4.88</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*p < .05, **p < .001, ***p < .000.

Incorporating the concept of MI into the language curricula facilitated the improvement of both the higher- and low-achievers’ motivation to learn English in this study. Higher-achieving learners presented more writing in English than before; moreover, they also had the ability to copy appropriate answers, such as vocabulary, phrases or sentences from reading contents, disregarding plagiarism at this stage of learning. Low-achieving learners gradually grew more willing to communicate in English. Specifically, I interviewed a group of 11th-grade students and found that they responded mostly in Mandarin Chinese but incidentally brought up some English words, such as panda, bamboo, and extinction, showing that both low and higher-achieving learners presented higher motivation to learn English.

Discussion of Research Finding 3

In this research both low- and higher-achieving learners in the study present higher motivation to learn and gradually increase their willingness to listen, speak, read, and write in English. Female students are especially good at writing, but male
students are more interested in oral skills, such as role-playing. Findings in this study are consistent with those of Sachs et al. (2003), whose participants also presented more interaction and interest in their language classroom; however, my research results conflict with those of Tan and Lee (2006), who found that motivation to learn increases only in high-achieving students, not in the low-achieving learners. They claimed that motivation of low-achieving learners’ may stall because the cooperative learning instruction, particularly the group investigation method, may be new for students, who must adjust to this new form of classroom learning; moreover, the group investigation method may cause difficulty for low-achieving students, accustomed to teacher-centered instruction and unable to adjust to student-directed instruction.

In addition, findings from the highest mean rating on the Motivation Strategies for Learning Questionnaire of 47 participants on their confidence in their ability to learn show lower scores. The majority of participants (49.8%) disagree that they have a strong confidence in their capabilities to exert greater effort when facing a challenging task. The result is consistent with Gao, Cheng, Zhao, and Zhao’s (2005) study, in which they investigated 278 Chinese undergraduate students’ self-confidence in language learning and found that up to 42% of them doubt their own competence while facing difficulties in learning English. Thus, learners’ beliefs are important determinants of their attitude toward improvement (Huang, 2007). A language teacher should try to foster students’ beliefs in their ability to learn and minimize negative beliefs that hinder learning. As a result, all learners can present higher motivation to learn.
Finding 4

In response to Question 1 (How will the group investigation (GI) model under the cooperative learning instruction in the EFL classroom help a teacher–researcher to motivate the low-achieving vocational high school students to learn English in Taiwan?), this study shows that the use of native language increases students’ interaction during the oral presentation performance, as shown qualitatively and quantitatively below.

Qualitative Results

In the final stage of group investigation, students were required to synthesize their data and draw conclusions for their final presentation in class. The oral presentation was considered a challenging task for the language learners, especially, those who lacked sufficient performance to deliberate their ideas in English. At the outset of this study, I decided that the oral presentations should be conducted in English because we were studying in an English Conversation I class; furthermore, groups were given time to plan or prepare for the presentation. The results derive from analysis of students’ behaviors in classroom observation and show, however, that no one was satisfied with English presentations because they were not fun, leading to numerous students falling asleep.

Tuan and Neomy (2007) asserted that most of the presenters in their study focused more on meaning, not linguistic accuracy. Linguistic barriers, such as unclear pronunciation, the lack of vocabulary, and limited fluency, were the common obstacles for their low-achieving language learners, difficulties consistent with the results in my study. For instance, the presenters did not perform with fluent oral English skills. The presenters did not use their time well because most of them
struggled with pronunciation, so they needed more time to present. In addition, the body language among presenters was inadequate; they did not maintain eye contact, focusing only on their notes.

J. Cummins (1979) claimed the adequate development of children’s native language has positive effects on the acquisition of two or more languages. Recalling my own learning experience in the USA, I understood little of the professors’ lectures and the required textbooks. If I had the textbook in both Chinese and English, I read the Chinese version so that I could express my true concerns and discuss the issues in depth. Moreover, students with similar backgrounds formed a discussion group and shared what we read from the textbook before class; thus, we were able to follow most of the lectures and join the discussion with American students in the classroom.

J. Cummins’ (1979) theory and my personal language learning experience motivated me to rethink the importance of the home language as a scaffold to new language acquisition (Aguilar et al., 2007). A similar result appeared in P.-S. Shao’s (2005) study of elementary students in Taiwan. She advocated using students’ first language to increase their willingness to ask questions as well as to promote a positive, interactive relationship between teacher and the students in classroom. Therefore, I encouraged instead of forced students to speak or write in English. Students earned higher scores if they could present in some Chinese instead of English only throughout their presentations.

The outcome included lots of fun and interaction between presenters and their audience. In addition, students’ artifacts also show that the students were capable of broad exploration when they deliberated various ideas in their native language for the panda debate, including educational, economic, environmental protection, and
entertainment issues—even the political relationship of Taiwan and China—with a large amount of Chinese speech and one or two words of English.

Discussion of Research Finding 4

Analysis of the data shows much in common with research results of previous studies. The findings confirmed Schmidt’s (1995) idea, supporting the use of a first language—Japanese—in secondary school EFL classrooms in Japan. In addition, Pappamihiel et al. (2008) investigated 27 adults learning English as a second language in Florida. Results from their study show that low-performance language learners fail to express their ideas or concepts in English because of their inadequate English, which also impact their listening, speaking, reading, and writing skills (McGhie, 2007).

J. Cummins (1979) proposed that first language knowledge facilitates the development of children’s second language performance skills. Students of English as a second or foreign language use their first language for a variety of functions in a second language classroom (Thoms et al., 2005). For instance, students use their first language knowledge to search for words in the dictionary (McGhie) to complete a writing task; students also use their first language for quick reading comprehension (Combier, 2006) to generate ideas, organize information, and deliberate what to do with their partners while engaging in collaborative tasks in a second language classroom (Brooks, 1992). As a result, using first language facilitates students’ access to higher language development and interpersonal interaction with capable peers, especially learners with low language performance (Thoms et al.).
Results and Discussion for Research Question 2

The second research question was “What can this teacher–researcher learn from implementing the GI model under the cooperative learning instruction that will improve EFL teaching for the students of the vocational high school in Taiwan?”

Finding 1

In response to Question 2 (What can this teacher–researcher learn from implementing the GI model under the cooperative learning instruction that will improve EFL teaching for the students of the vocational high school in Taiwan?), this study shows that teachers recognize the cultural values that may help practice effective pedagogy instruction and grouping in an EFL classroom.

Qualitative Results

A small group of peers working together should provide a relatively low-anxiety setting and supportive environment (Sharan & Sharan, 1992); therefore, I divided 47 subjects into 16 teacher-selected heterogeneous groups. Each group consisted of three to four members of both genders in 10th, 11th, and 12th grades with the following academic majors: information technology, culinary arts, and infant and child care. Initially, students did not know one another and presented varying degrees of performance in English. The results found that teacher-selected heterogeneous groups were uncomfortable, impeded communication, and caused imbalanced workloads. By contrast interest- and familiarity-based heterogeneous groups created group cohesiveness.

Teacher-selected heterogeneous groups caused students' discomfort.

The results derived from student interview indicated that 44 of the 47 students (n=44, 87%) believed that they would enjoy working in groups with students whom
they already knew. Many students, especially the shy or the less confident in English language skills, felt uncomfortable working in teacher-selected heterogeneous groups. Below is an example illustrating a 10th-grade student’s reasons for nervousness working in groups:

I don’t know any of my group members. I can only talk to a 10th-grade student because he is the only male student in our group. Our group leader is a 12th-grade student. She is very good at English, but she seems not very easy-going; so I am afraid and feel nervous to talk to her. Honestly, we cannot complete our task without her in our group. (Interview, 0328)

Soon I realized that the students were not only struggling with English learning, but they were also trying to adapt themselves to the new learning environment involving groups. As I translated the information back and forth, I also noticed that the composition of various small groups could hinder dialogue among group members.

**Teacher-selected heterogeneous grouping impeded communication.** Teamwork was supposed to provide students with opportunities for face-to-face communication to express and exchange their individual ideas with group members. During the second round of student interviews, I had a conversation with a 12th-grade student, this female student complained about her frustration with group work. She said that a common expression appeared on the faces of her group members when they received the task from teacher: “We don’t get it.” None of them were eager to seek answers or volunteer to look for the translation of English words in dictionaries but instead waited for instructions from her.

In order to gain more information on students’ reactions to groups, I went
around the classroom to observe how other groups cooperatively work together. Walking up to small groups for observation of student learning was the best way to learn from them and help them learn (Brookfield, 1995). I noticed one group in particular, in which each member worked independently. They passed the worksheet to one after another to write down their ideas without sharing or discussing. Of course, reviewing their worksheet, I found that many key points could have been developed and explored further. In an interview with the 12th-grade group leader, he indicated that he was unable to work with his group members because he did not like to work in teacher-selected heterogeneous groups. Cooperative teamwork was supposed to involve everybody working together, but no conversation occurred in this group.

Students were uncomfortable working in teacher-selected heterogeneous groups in the EFL classroom, unable to speak in detail about the topic or share their views. As I went back through the audiotapes of the students’ interviews, I heard a 10th-grade student stated that he felt tension working in teacher-selected heterogeneous groups:

I am the only 10th-grade student in my group. I felt nervous working with the seniors. Last time, I wanted to participate in our task because I finally had an idea to contribute. Once I worked up the courage to volunteer my idea, I realized the group had already begun working; so I chose to remain silent instead. (Interview, 0509)

Project work in small groups allowed students to engage in on-task dialogue for problem-solving or making decisions in a cooperative manner. At this point, I found that the teacher-selected heterogeneous groups in my EFL classroom did not help the students with the opportunity to experience interactive learning. They were
reticent and uncomfortable participating in this type of group because they did not know or trust one another. It also hindered the students’ abilities to extend research and investigate. As a result, teacher-selected heterogeneous groups increased stress in learning and caused freeloading among group members.

Teacher-selected heterogeneous grouping caused an imbalance in the workload. The procedure pursued in cooperative teamwork typically asking questions, discussing, negotiating about findings, and finally deliberating conclusions. In this study, students proceeded as follows: First, the group leader translated questions into Chinese, so groups could process their task. Then, the group leader guided a group discussion for exchanging ideas and concluding their findings. Ideally, the group leader was supposed to be more proficient in English than other group members. As such, the group leader played an important role, taking charge of the group’s work. Interviewing students, I found that most of the students sincerely wanted to contribute their ideas to group discussions, but they did not always do so because their English competencies and self-confidence were inadequate. Thus, most of the work fell to the group leaders, who found themselves overloaded.

One female student consistently showed high motivation to learn. She was a group leader and was always prepared with an electronic dictionary to work on tasks independently. She complained about what she felt cooperative team work did for her:

I don’t feel comfortable with teamwork because we seldom worked together.

Two members of my group seldom engaged in group sharing or individual work. A 12th-grade student was absent all the time, and when he came to class, he slept. Another 11th-grade student came to class but sat quietly. I suspected that he might have not understood our task. Really, I don’t want to work with
group members. It’s too much work for me. (Interview 0328)

Again, the way I divided students into teacher-selected heterogeneous groups with different genders, academic majors, class levels, and English academic performance did not reflect what the cooperative learning procedure should be. Most of the students were afraid of having a conversation or asking for help from peer group members. Group leaders asked their peer-groups one question and then stopped speaking altogether. Forming groups did not support the effectiveness of cooperative learning but instead led to tension and impeded communication; furthermore, one or two students were overloaded with assigned tasks.

Infusing cooperative learning instruction into an EFL classroom required a great deal of patience and clear instructions from the teacher. Another important issue was that cooperative work was not practiced in other English classes at this vocational high school. I discovered their lack of exposure to cooperative work through conversations with students. One student explained how she was afraid to work in groups:

It seems to me that working with a group in an EFL classroom will be fun because I am not good at English, and I can get help from others; but I am not sure I can handle cooperative work with group members whom I don’t know. I am afraid of talking with them or asking questions. (Interview, 0328)

The results revealed the need to teach students the basic skills of cooperative work to ensure a good adaptation to the new learning environment. Mini-training sessions to show students how to work cooperatively with one another should be presented before engaging in cooperative work.

In addition, some students did not react well when they participated in groups,
but others did. During the second round of student interviews, a 10th-grade student was an extroverted person who made new friends by working in teams, but another 10th-grade student stated that she was afraid to talk and share at the beginning of the team sessions. She said:

Actually, I felt uncomfortable working with group members who I did not know; however, I learned from them because they were seniors. They taught me not just the task at hand but also shared the facts of school life because I was a freshman. It was an incredible learning experience for me at my high school. (Interview, 0509)

In Teachable Moments: Reconceptualizing Curricula Understandings (2006) Hyun inquired, “Who owns the curriculum?” (p. 57). She claimed that curriculum development must move toward meaningful teachable moments for teachers and reflection on learnable moments for students, influencing me to rethink my role and construct an appropriate curriculum in my EFL classroom. I felt that I needed to pay more attention to students’ beliefs about self-efficacy with regard to their English performance in school; moreover, I also had to consider students’ concerns about learning in a high-anxiety learning environment.

In addition, twenty-eight 12th-graders graduated in June; thus I had to rearrange the remaining nineteen 10th- and 11th-graders to form new groups during the last two class meetings. I divided the 19 students into five groups. Each group consisted of 3 to 4 participants with mixed genders but the same academic majors and class levels. I also assigned group leaders who presented higher English scores based on their precious semester scores in English subject.

Before proceeding, however, I must briefly define teacher-selected
heterogeneous groups and interest- and familiarity-based heterogeneous groups.
Teacher-selected heterogeneous groups in this study were those in which group mates had diverse academic majors, class levels, genders, and levels of English academic performance. In other words, in teacher-selected heterogeneous group members did not know one another but were required to complete their tasks in a cooperative setting. By contrast the interest- and familiarity-based group mates were friends or acquaintances.

**Interest- and familiarity-based heterogeneous grouping created group cohesiveness.** Students who worked in interest- and familiarity-based heterogeneous groups engaged in active interaction. In the interest- and familiarity-based heterogeneous groups members knew one another but were still divided among mixed English performance learners in order to enhance language learning and task accomplishment (Tuan & Neomy, 2007). In observing the way an 11th-grade group leader directed his group members to discuss instead of simply copying answers from each other, I heard the following (All names are pseudonyms):

Liu: 不要再寫我們要討論啦！不然我們沒辦法完成快來討論啦!
(Don’t just copy the answers; we have to discuss. Otherwise, we cannot complete our task.)

Liu: 你覺得驢子會活嗎?
(What do you think are the donkey’s chances for survival from his fall into the well?)

Chan: 我說會。
(I said, yes.)

Liu: 那你說說看這隻驢子會如何活下來?)
(Then, tell me how this old donkey survives.)

(Classroom observation, 0613)

This vignette illustrated how the cohesiveness began to occur within groups. The leader asked questions, clarified ideas, supervised group discussion, and assisted group mates who had difficulties in English. The way group mates tried to influence one another to stay on task during group activities represented the best class environment. The results indicated that students working in interest- and familiarity-based groups discussed more about their tasks and were more likely to share learning materials with their group mates as compared with those in teacher-selected heterogonous groups.

The results brought to mind Krashen’s idea (1981) on the affective filter for language acquisition: Successful language acquisition occurs when the learner has high motivation and self-confidence and experiences it in a low-anxiety, safe learning environment. In this stage of the study, these students enjoyed the opportunity to respond individually and felt free to share their points of view in the safety of interest- and familiarity-based heterogeneous groups. An effective teacher-built cohesive interdependence helped develop unity among group members in order to complete learning tasks and also encouraged intrinsic motivation and attitudes toward learning. In fact, the majority of students supported the effectiveness of cooperative language learning in interest- and familiarity-based heterogeneous groups.

Students were asked, “Did the cooperative group work help you learn in the EFL classroom?” In this study I conducted student interviews three times with members of both the teacher-selected heterogeneous and interest- and familiarity-based heterogeneous groups. In the first and second interviews 16 of the
47 students (37%) and 18 of the 47 students (38%) respectively agreed. Both first and second interviews were conducted when the teacher-selected heterogeneous groups were in place. Positive responses came from 21 of the 23 students (91%) in the third interview about interest- and familiarity-based heterogeneous groups. Obviously, the students enjoyed language class more when required to work cooperatively than individually. In fact, 91% of learners responded in the final interview that they felt most at ease when working in the interest- and familiarity-based heterogeneous groups. These interviews results have been presented in graphic form in Figure 9. I observed that low-achievers felt at ease asking for assistance from higher-achievers when working in interest- and familiarity-based heterogeneous groups and higher-achieving students also felt most comfortable directing or dividing tasks among group mates in order to complete common tasks.

In observing a group of 11th-grade students, I found that some teaching and learning occurred when they worked with one another. In particular a student who presented the least confidence in his English ability obtained assistance from a groupmate. A sample dialogue between them follows (All names are pseudonyms):

Yu: 要唸出來呀！

(You have to talk it out.)

Lin: pre-

Lin: 這個是什麼？這個我不會唸啦！

(What is this word? I don’t know how to pronounce it.)

Yu: Pre-ser-va-tion


(This word—Yes, I know how to pronounce the word bam-boo.)
Yu: 不對,重音不對, 重音在後面, 再試一次。
(No, you have to pronounce the word with an accent on the last syllable.)

Group mates continued working together to practice the vocabulary drills, so they could move to the next activities to complete their final task.

Yu: 好了, OK 啦 可以去簡同學那考了。
(OK! You are ready to have a test. Let’s go to Mr. Gan for a test. Mr. Gan is the student in charge of the vocabulary activity.)

Lin: 耶,我有六分了!
(Yes, I earned 6 points for our group.) (Classroom observation, 0502)

The results indicated that students practiced effective learning and teaching while they worked with group mates with whom they studied and talked everyday. In other words, these students felt most uncomfortable asking for help or giving directions to group mates with whom they were unfamiliar or with whom they did not usually work. Students believed that the best place to work—where they wouldn’t fail—was among classmates they knew. Thus, the teacher had the responsibility to offer this more supportive learning environment.
Figure 9. Student interview regarding participants’ responses on peer-group work as an aid to learning.

Quantitative Results: t-Test

Test anxiety orientation motivation. Table 14 contains statistical results from the analyzing of the students’ pre- and post-MSLQ surveys, indicating students’ anxiety
posttest scores showed a significantly higher $M$ (15.35) than the pretest $M$ (13.94) with a difference of 1.41. The difference was significant because the $p$-value was as low as .020. The results showed that the students significantly increased their anxiety level in my EFL classroom over time. A significant difference existed: $t$ (46) = -3.40, $p = 001$ ($p < .05$). In other words, the cooperative learning method caused students to become more anxious in my EFL classroom.

Table 14

<table>
<thead>
<tr>
<th>Lowering Anxiety</th>
<th>N</th>
<th>df(46)</th>
<th>$M$</th>
<th>$SD$</th>
<th>$t$</th>
<th>$p$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pretest</td>
<td>47</td>
<td>46</td>
<td>13.98</td>
<td>3.65</td>
<td>-2.46</td>
<td>.018*</td>
</tr>
<tr>
<td>Posttest</td>
<td>47</td>
<td>46</td>
<td>15.45</td>
<td>4.22</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*$p < .05$, **$p < .001$, ***$p < .000$. 

Generally speaking, in a traditional EFL classroom in Taiwan teachers implementing routine teaching strategies expect students to listen to their lectures carefully, write down notes quietly, and memorize the information so they can pass tests. In other words, no discussion, teamwork, or speaking are required during their language classes, only memorization. Under this system students’ attitudes toward learning remains passive, without analyzing, applying, or evaluating information or problem-solving to develop their skills. Moreover, the lack of experience in cooperative learning instruction in other classes was an obstacle limiting their performance and positive attitudes in small groups. As a result, students were anxious about their performance under cooperative learning settings in my EFL classroom.
Discussion of Research Finding 1

What occurred in my EFL classroom with regard to group composition confirmed findings of a previous study. Du-Babcock (2003) found that second language (L2) speakers can communicate easily in regular homogeneous group meetings with individuals who are also nonnative speakers of English, but they have less confidence speaking in heterogeneous group meetings. These results contradict Samples’ study (1992), in which a successful task (Project WILD) was completed by a group of 10th-to 12th-grade students, a mixed of group higher and lower-achievers in different grades. Students worked together to prevent their natural swamp resource from being destroyed by a proposal for a highway in their county in Florida in 1986.

Why was communication hindered during task engagement for EFL learners compared with American students? Cultural values can explain why students in this study were unwilling to communicate in small groups in the EFL context. McGuire (1992) claimed that many Japanese students feel self-conscious about speaking in front of class because they are aware of the ethics of respect for seniority. In particular younger classmates must defer to elders or those with higher positions.

Wen and Clement’s (2003) study identified two characteristics in Chinese language learners’ unwillingness to become involved in classroom communication. One is the self and another is the sense of group belonging. First, regarding the self, the Chinese care deeply about others’ evaluation or judgment of their language and behaviors. Face-saving is extremely important. They seek to present proper behaviors and avoid making mistakes that may embarrass them. It is hardly a surprise, then, that the students in this study were hesitant to delve into new language learning in the EFL context.
Second, a strong sense of group belonging delineates friendships. Chinese perceive people having inside groups and outside groups. Inside groups share a sense of coherence and interdependence (Wierzbicka, 1996). Chinese are also very cautious in approaching strangers (G.-C. Chu, 1979). In other words, Chinese require time to feel comfortable with people who are unfamiliar; moreover, adjusting themselves to a new group or culture to the point where trust and comfort occur is challenging, a conclusion that aligns with McGuire’s in a study of Japanese university students working in groups in cooperative settings.

In addition, the research results on the Motivation Strategies for Learning Questionnaire showed that students became more anxious over time. Why did the students show high level of anxiety when cooperative learning technique was incorporated into an EFL classroom? Isn’t cooperative learning supposed to diminish students’ anxiety so they feel comfortable learning from one to another? In fact, my research results derived from student interviews indicated that students were more anxious because they had more opportunities to participate in a variety of learning activities, such as discussing the topic, negotiating with group mates, and presenting their conclusions compared with traditional lecture-based instruction.

In contrast with my results, Schinke-Llano and Vicars’ (1993) participants considered that student-centered activities are the most comfortable learning approaches because they build negotiated relationships with group mates and the teacher. By contrast participants in their study indicated that the teacher-centered instruction is the least comfortable learning method. By contrast participants in their study indicated that the teacher-centered instruction is the least comfortable learning method. In fact, their research results reminded me of the affective filter for language
acquisition proposed by Krashen (1981), who maintained that successful language acquisition occurs when the learners experience high motivation and self-confidence in a low-anxiety, safe learning environment.

In the present study, learners’ anxiety levels on the Motivation Strategies for Learning Questionnaire were increased in my EFL classroom, not because they were taking a test but because they were experiencing a new method of language learning instruction. They were more concerned about how to work well among group mates in cooperative settings. In cooperative learning instruction, students face a variety of learning tasks given by the teacher. They have more opportunities to discuss, share, research, and give presentations within a small group or in class. These techniques provide numerous opportunities for making mistakes in front of classmates and being teased by peers. In short, cooperative learning causes them to become more nervous about engaging in a challenging task, but they present greater confidence and motivation and show considerable progress in communicating by listening, speaking, reading, and writing in an EFL classroom. The findings also illustrated that a certain level of anxiety actually facilitates learning. In Mason’s lectures at the University of Versailles St. Quentin, he claimed that anxiety did not exactly have negative effect on students' learning (Classroom lecture: 1993–2002). Giving the students responsibility for their own learning contributes to their efforts to participate in learning activities.

In this study, participants’ demographic features differed in terms of gender, class level, and academic major. Students were required to work cooperatively. Cultural values provide a clear interpretation about how student behaviors present in an EFL context. An effective language teacher should be aware that cultural values may influence pedagogy and grouping in an EFL classroom. In addition teachers
should take time to teach students about cooperative learning before implementing
groups (Jurcenko, 1997) and give them time to adjust to the new method of learning
(Tan, Lee, & Sharan, 2007). Furthermore, teachers must also deliver clear lessons
about how to conduct successful teamwork and provide time to practice interaction to
promote better social relationships and language development.

Finding 2

In response to Question 2 (What can this teacher–researcher learn from
implementing the GI model under the cooperative learning instruction that will
improve EFL teaching for the students of the vocational high school in Taiwan?), this
study shows that the recognition of language learners’ difficulties and the support of
effective language learning strategies facilitate the building of students’ (a)
self-efficacy for learning outcomes and (b) second or foreign language acquisition. In
this study the teacher–researcher recognized obstacles in learning a new language and
thus delivered some effective language learning strategies in the EFL classroom. In
the following section, findings have been supported of qualitatively and
quantitatively.

Qualitative Results

During each group session the teacher posted the topic, and then the group
mates were to examine the subtopics, questions, and related readings in English in the
cooperative setting. Inadequate vocabulary was the common obstacle for the
participants, limiting their comprehension of related readings (Rose, 2004). The
students overwhelmingly rated vocabulary recognition as one of their least favorite
activities, perceiving it as both painful and time-consuming. Typically, students
misunderstood or felt confused about the reading content. If they did not comprehend
the question, they curtailed the conversation and ceased exploration of the topic.

For instance, one of the questions posted on the board was “Why do you think a typhoon is scary?” Although most students had no problem translating each individual word with the online dictionary, they had difficulty in sentence comprehension. Part of a dialogue between two students has been excerpted below in both English and Chinese:

Why do you think a typhoon is scary?

什麼     你     想     颱風     引起驚慌的

A: 好了, 題目的中文翻譯在這。

(Here is the Chinese translation for each word of the question.)

B: 我看不懂這中文翻譯: [什麼你想颱風引起驚慌?] 你懂嗎?

(What does this mean: “Why do you think the typhoon cause surprising? I don’t get it. Do you?)

A: 你確定你沒翻錯?

(Are you sure you are interpreting this sentence correctly?)

(Classroom observation, 0425)

Because of the difference in English and Chinese syntax, the Chinese translation of scary students found in the dictionary did not match the real meaning in spoken Chinese. Thus, it took students considerable time to figure out the real meaning of the question.

Another example shows another type of problem causing students’ difficulty in comprehending the reading. A group was working on the following sentence: “A plant provides us with food.” A 12th-grade student typed provides into the electronic dictionary, which suddenly shut down.
A: 怎麼回事？這個單字我已輸入兩次，應該沒錯呀。

(What happened? I typed this word twice. I am sure I typed it correctly.)

B: 讓我試試...為何會這樣。你確定輸入正確?

(Let me try... How could this happen? Are you sure you copied this word correctly?)

字典裡我也找不到這個字。

(I cannot find this word in the dictionary either.)

(Classroom observation, 0425)

In fact, a few students had knowledge of the grammar rules, but most of them simply did not know they should delete the s when typing *provide*. Students could not explicitly integrate what they had learned or apply grammar rules to new situations in English. Reciting vocabulary and grammar rules and translating the reading content word by word constituted the primary tasks in the typical EFL classroom. Predictably, students reaped little benefit from that style of teaching and felt more frustrated than before; therefore, building students’ self-efficacy with higher aspiration toward language learning is essential.

Self-efficacy is the belief of an individual in his or her capabilities to accomplish a task (Bandura, 1993). In order to help students promote higher self-efficacy in language learning, a variety of learning strategies and tools, such as vocabulary wall, visual aids, and wide reading (Cunningham, 2005), were implemented in this study to boost students’ new vocabulary recognition and acquisition. The results reveal that students did not blame themselves for failing school subjects because they had evaluated their capabilities and avoided tasks they believed were beyond them. This approach caused those who entertained serious
doubts about their capabilities to give up in their EFL classroom. As a result, self-efficacy is a determining factor in a person’s positive involvement in task engagement (Bandura, 1994) and contributes to better performance in learning (M.-F. Huang, 2007).

Quantitative Results: t-Test

Self-efficacy for learning and performance. The statistical results in Table 15 from the analysis of the students’ pre- and post-MSLQ surveys (see Appendix B) indicate that posttest scores for students’ self-efficacy for learning and performance were significantly higher, $M$ (18.83), than on the pretest, $M$ (16.35), with a 2.48 difference, showing that the students significantly increased their motivation scores in self-efficacy for learning and performance with a significant difference, $t$ (46) = -3.40, $p = .001$ ($p < .05$). In other words, the participants in this study with a high sense of self-efficacy were likely to believe that ability, effort, and strategy contribute to better performance.

Table 15

<table>
<thead>
<tr>
<th>Self-efficacy</th>
<th>N</th>
<th>df(46)</th>
<th>$M$</th>
<th>$SD$</th>
<th>$t$</th>
<th>$p$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pretest</td>
<td>47</td>
<td>46</td>
<td>16.17</td>
<td>5.39</td>
<td>-3.40</td>
<td>.001**</td>
</tr>
<tr>
<td>Posttest</td>
<td>47</td>
<td>46</td>
<td>18.81</td>
<td>6.25</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*p < .05, **p < .001, ***p < .000.

The results reveal that the recognition of language learners’ difficulties and the support of some effective language learning strategies facilitate confidence-building
and language-acquisition.

Discussion of Research Finding 2

Results of the current study are consistent with those of Law, Chen, and Sachs (2008), who found that low achievers do not employ appropriate learning strategies but instead believe that memorization is the better way to perform well. M.-F. Huang (2007) studied 509 university students in Taiwan and found those language learners’ beliefs about self-efficacy in learning English are strongly related to their use of all types of learning strategies. In her study, students strongly believe that their low abilities, weak efforts, and poor strategies cause inadequacy of language outcomes in school subjects. She found that vocabulary acquisition frustrates students’ perceptions of the relationship between effort expended and learning outcomes.

Learning vocabulary may seem to be one of the easiest aspects of learning a new language, but it is one of the most difficult tasks for the participants in this study. They asserted that they have too many words to learn and insufficient time to learn them from memory. As a result, students exert less effort and show negative attitudes during task engagement. One may ask, however, how many vocabulary words are enough to communicate meaning? What is the best means to vocabulary acquisition?

Vocabulary should be taught and learned in the context of reading (Scott, 2005). Wide reading grows vocabulary (Cunningham, 2005) and facilitates students picking up certain words quickly and easily. When students lack vocabulary comprehension and English reading experience, they become passive about learning in the EFL classroom. This finding brings me to conclude first, that effective language teachers must use innovative methods and learning strategies, including teaching students to reflect on their own learning as a means to effect learning development
(Svinicki, 1999). Second, a language teacher should help develop positive attitudes by encouraging students to accept the challenge inherent in language learning. When students are required to explore information and understand topics that frustrate them, they gain opportunities to experience language learning, which is not always easy. With continual practice and sufficient time, students can make progress.

Finding 3

In response to Question 2 (What can this teacher–researcher learn from implementing the GI model under the cooperative learning instruction that will improve EFL teaching for the students of the vocational high school in Taiwan?), this study shows that the importance of encouraging students to maintain positive attitudes about making mistakes and support one another’s learning.

The majority of participants in the study were very shy. A 12th-grade student admitted that she was anxious and uncomfortable if I called on her to demonstrate something in front of the class:

Teacher, please don’t call on me to give a presentation or speech in class. I will do anything for you except make a speech in front of the class. I don’t want to make a mistake and perform badly in front of the 10th and 11th graders. It’s so embarrassing for me to be in this terrible position because I am a 12th grader. I should be a good role model and not feel shame about possibly doing poorly on a presentation. (Interview, 0321)

Shyness or embarrassment may be one reason that students feel nervous and resist speaking in front of the class (Chan & Wu, 2004); however, this 12th-grade student was afraid of receiving negative evaluations and hated teasing from other learners. Students are afraid to make mistakes because of their incorrect pronunciation
of words caused by limited oral and listening abilities (K.-S. Tsi, 2003). Students’ poor English performance and shyness can hinder successful language learning.

Anxiety is an important factor affecting students’ foreign language learning (Chan & Wu, 2004). Krashen (1981) proposed the affective filter in second language acquisition, claiming that the best environment for learning language should create low anxiety and high motivation. Teachers should encourage instead of correct their students when they make mistakes. But have teachers really taught their students to be unafraid of making errors while learning a new language? Yu (2005) examined speech acts in a cultural context, contrasting native Chinese and American English speakers. His results uncovered lower frequencies of compliments in Chinese discourse than in American discourse. In fact, the Chinese regard compliments as statements of genuine admiration. By contrast Americans view compliments as a means to achieving group unity. A language teacher should consider the importance of teaching peers to support one another’s learning by paying compliments instead of criticizing. In addition, the teachers should provide feedback in a positive and uncritical manner to support students’ efforts; such feedback also enhances their competence and motivation in learning language (Noels, 2003).

Discussion of Research Finding 3

Losing face or feeling embarrassed is a critical factor that affects language learners’ performance in EFL classrooms. This study found that students are not eager to engage in the language learning tasks because of their hesitation and shyness. This finding confirms Victor’s (1992) claims that language learners often feel embarrassed when making oral or written mistakes. According to Cambourne (1988) model of learning, approximation is one of the learning concepts implemented in the learning
process. Cambourne mentioned that based on the cultural views, people always expect themselves to present their best performance in front of people without making mistakes; however, making mistakes is a necessary learning process which allows us to challenge ourselves and modify our error behaviors through a series of testing until the approximation errors begin to decline. Teachers, therefore, can courage learners not be afraid to make mistakes but develop a respectful classroom environment and relationships.

Miller and Pedro (2006) illustrated the benefits of developing a respectful language learning environment: Doing so can decrease the fear of language learners when facing a challenging task; moreover, students are willing to get to know one another and share more of themselves by delivering respectful words, tones, attitudes, and actions. In addition, Mangubhai (2007) recommended that teachers maintain the moral dimension when they design their curricula. The respectful curriculum is also called the “kinder curriculum,” which trains our students to respect their teachers, peers, and themselves (Miller & Pedro, p. 296). In fact, the idea of respectful curriculum is consistent with Confucius’ educational principles and pedagogy: The ultimate aim of education is the development of moral people and virtuous citizens (R. E. Cummins, 1983).

Finding 4

In response to Question 2 (What can this teacher–researcher learn from implementing the GI model under the cooperative learning instruction that will improve EFL teaching for the students of the vocational high school in Taiwan?), this study shows that computer technology as a medium for the teacher when designing an EFL classroom allows students to be immersed in variety of target language contexts.
The incorporation of computer technology into EFL classrooms enhances student motivation and efforts to learn a foreign language as shown in the following section, qualitatively and quantitatively.

**Qualitative Results**

According to Cambourne’s (1988) leaning model, he claimed that learning includes immersion and demonstration. For Taiwanese students, learning English only largely happened in EFL classrooms, but there was less opportunity to use or practice it outside of the classroom. Thus, EFL teachers in Taiwan consider building an EFL classroom in which students are immersed in the target language learning context. Computers provided context for students to interact with the availability of text, images, sound and video (Bonk, Hay, & Fischler, 1996). Students also have chances to receive demonstrations from the computer by listening to some real native English speakers to know how a particular word can be used and pronounced correctly.

The purpose of this study was to raise low-achieving language learners’ motivation in an EFL classroom. According to analysis of students’ background survey, students stated that playing computer games or engaging in online exploration was a favorite after-school activity. Slavin (1991) illustrated the desirability of intrinsic motivation in the cooperative learning classroom; however, he also suggested the teachers should encourage students to expend their efforts truly to master a subject in school by using extrinsic rewards, such as giving students certificates to reward their cooperative efforts. Therefore, in this study, I used computer technology as extrinsic reward to enhance students’ motivation to participate positively in language learning activities.

M. Carroll (2004) stated that an effective language teacher should design a
language curriculum with different modes of language learning instructions; therefore, integrating technology into the curriculum is an appropriate pedagogy and also serves as one of the major aids in the teaching of the English language. Students experience additional opportunities to acquire new vocabulary by repeatedly operating the mouse to explore pictures or hyperlinks in order to figure out its function. Finally, students work cooperatively and patiently without a teacher’s interference, and no one is isolated.

Jonassen, Peck, and Wilson (1999) claimed that computer technologies support interaction, collaboration, and a student-centered classroom. Bonk, et al., (1996) used computer hardware and software as tools for Indiana fifth- and sixth-grade students in a cooperative unit on weather knowledge. Studies have indicated that computer technology provides useful educational instruction for students to develop positive attitudes toward learning (Davies, 2000; Freese, 1997). This applies particularly to language learners who struggle with reading comprehension and spelling (Fasting & Lyster, 2005). In this study, most students responded positively to incorporating computer technology into the language classroom because it facilitated their reading comprehension and developed their interest in English. A 12th-grade student said that watching YouTube videos was fun and helped her to understand the global warming issue:

I am not good at English. Don’t ask me to explain the main idea after reading an English article. Actually, I am interested in watching films in class, especially the movie An Inconvenient Truth from YouTube. I don’t exactly understand the presenter’s verbal explanation on the issue; however, I can understand more of the content by watching a movie instead of reading an
Students were very good at using the computer and logging into the web without guidance from a teacher; thus, in presenting the panda topic, the researcher designed a task in which groups were to create a panda habitat by using the Internet. In an interview a 10th-grade student clarified his feelings about the using the computer in an EFL classroom:

I am getting to like and feel less anxiety attending English class because I have opportunities to play on a computer. I am not really good at English, but I am a very knowledgeable computer person. I always play computer games after school. I know only a few English words, such as start, game over, and congratulations because these words are shown repeatedly in computer games. I represented my group in designing a panda habitat in a zoo environment, and it was fun. (Interview, 0509)

A 12th-grade student explained that she did not like working on tasks that challenged her; however, computer technology helped reduce her stress and complete work quickly.

It is an unpleasant task for me to recognize English questions posted on the board by the teacher. I do not like the vocabulary recognition activity because I am not good at English. If I do not understand the questions, I cannot engage in the task; however, I feel comfortable using an online dictionary. It is a quick and convenient tool: I just need to type the English word and click search, and then I obtain the translation. (Interview, 0509)

The results revealed that the majority of students’ motivation towards English lessons increased significantly with the incorporation of technology into the EFL
classroom. Even sleepy students said that they were more likely to engage in English learning if they could work on the computer. I then realized how computer technology influences adolescents’ attitudes toward learning English. This was an encouraging sign of the improvement of the students’ motivation to learn and their taking ownership of their comprehension toward the English language. As a language teacher, therefore, understanding adolescent psychology is essential. Alvermann et al. (2007) investigated 60 students in Grades 7 to 9, who had been labeled underachievers in reading. Their participants admitted that they were uninterested in reading and sat passively in reading class; however, their study found that those underachieving readers spent much time reading outside school. They liked who they were and what they were good at; thus, language teachers should encourage adolescents to identify themselves by behaving positively. Teachers must also be aware of the activities that occupy students’ time after school and incorporate them into the curriculum to develop motivation to learn (Alvermann, 2006; Kormos & Csizer, 2008).

**Quantitative Results:** t-Test

*Extrinsic goal orientation.* Similar results emerged from the quantitative statistical analysis. As shown in Table 16, the statistical results in Motivation Strategies for Learning Questionnaire indicate that students’ extrinsic motivation posttest scores were significantly higher, $M (16.81)$, than the pretest, $M (15.04)$, with a difference of 1.77. Significant improvement occurred for students in extrinsic motivation to learn a language, $t (46) = -2.89, p = .006 (p < .05)$ with the $p$-value as low as .006. According to the definition of extrinsic motivation orientation, the individual is eager to participate in tasks, not because the task itself arouses their interest but because they expect to receive rewards, such as grades in completing
predicted tasks (Gardner, 1985). The results reveal that students are more willing to engage in tasks if receiving rewards or praise; moreover, they also enjoyed participating in related competitive activities in English.

Table 16

*Results of t-Test on Pretest and Posttest on Extrinsic Goal Orientation of MSLQ*

<table>
<thead>
<tr>
<th>Extrinsic Motivation</th>
<th>N</th>
<th>df(146)</th>
<th>M</th>
<th>SD</th>
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<td>14.87</td>
<td>4.47</td>
<td>-2.89</td>
<td>.006*</td>
</tr>
<tr>
<td>Posttest</td>
<td>47</td>
<td>46</td>
<td>16.74</td>
<td>3.99</td>
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</tr>
</tbody>
</table>

*p < .05, **p < .001, ***p < .000.

**Discussion of Research Finding 4**

The findings support prior studies on the effectiveness of computer technology as an aid to language learning (Davies, 2000; Fasting & Lyster, 2005; Freese, 1997) and to capture students’ attention (Brophy, 1987); however, in this study, some unexpected outcomes reflect the impact of learning a foreign language by using an advanced but problematic technology. A few students expressed their dissatisfaction when they experienced technical problems. One of the students complained about computer malfunctions that prevented her and her partner from focusing on the task at hand.

When I had to find something over the Internet, I could not find it because the computer did not work well. The computer took a long time to log in and then ended up crashing. It was distracting. (Interview, 0509)

I understand that students enjoy learning a new language by using computer
technology because they are willing to spend time at the keyboard; however, I also acknowledges that deficiencies in the computers limit my teaching and causes distraction for the students. I assigned two students per computer; consequently, if a computer crashed, the group was unable to continue working. In order to avoid more frustrations among students, I reminded them to conduct themselves appropriately while using the computer in the computer lab. Students welcomed the opportunity to use computer technology within the EFL classroom, but they were unhappy about poorly functioning computers. Once one group complained about slow loading or crashing problems, so I had to reassign the computers from one computer with two students to one computer with three students. When too many students worked on a computer, too much off-task conversation occurred; therefore, I had to give my attention to classroom management instead of focusing on instruction.

Adequate training and skill in solving computer technology problems are essential for me as a teacher in an EFL classroom, confirming the conclusions of Franklin (2007), who illustrated the necessity of including knowledge and skills of electronic pedagogy so that teachers can help students overcome irritating computer problems that routinely occur in the classroom. Further discussion of introducing computer technology into teacher preparation programs has been included in the final chapter of the current research. In summary, the results demonstrate that using computer technology as a reward develops students’ interest in learning English.

A similar concept emerged from the quantitative statistical analysis in Motivation Strategies for Learning Questionnaire and shows an interesting pattern. Although the results indicate that students are extrinsically motivated to accomplish tasks in cooperative settings, $t (46) = -2.89, p = 006$ (p < .05) with the $p$-value as low
as .006 (See Table 15), their motivation is not necessarily connected to some external rewards, such as high grades.

As shown in Table 17, especially items 7, 11, 13, 21, and 30 of the MSLQ provide further insight into learners’ extrinsic motivation. The results in items 7, 11, 13, 21, and 30 show that certain questions about extrinsic goal orientation do not present statistical significance in the difference in pre- and posttreatment scores, including the following: (a) item 7, “I want to get a high grade in English,” $t (46) = -1.036$ with a $p$-value of .306 ($p > .05$); (b) item 11, “The most important thing for me right now is improving my overall grade point average, so my main concern in this English class is how to get a high grade,” $t (46) = -1.579$ with a $p$-value of .125 ($p > .05$); (c) item 13, “If I can, I want to get high grades in this class than most of the other students,” $t (46) = -1.563$ with a $p$-value of .115 ($p > .05$); (d) item 21, “I want to get a high grade in this class,” $t (46) = -1.324$ with the $p$-value of .192 ($p > .05$); (e) item 30, “I want to present my English academic performance well because it is important to show my ability to my family, friends, or others,” $t (46) = -1.845$ with a $p$-value of .071 ($p > .05$).

In fact, the common feature in the above questions is that students’ responses in pre- and posttests did not show significant difference. A probable explanation may be that students did not expect to receive high grades but hoped at least to score above the average score of 60 in English. Thus, the teacher must consider the varied dimensions of a curriculum oriented toward extrinsic motivation to promote maximal learning; these dimensions include positive feedback or appropriate extrinsic rewards from the teacher, designed to maintain student interest and lead to higher motivation in language learning (Katz, Assor, Kanat-Maymon, & Bereby-Meyer, 2006).
Table 17

*Subscales of Motivation Based on Extrinsic Goal Orientation of MSLQ*

5. I believe I will receive an average grade in this English class.

7. I want to get a high grade in English.

11. The most important thing for me right now is improving my overall grade point average, so my main concern in this English class is how to get a high grade.

13. If I can, I want to get high grades in this class than most of the other students.

21. I want to get a high grade in this class.

30. I want to present my English academic performance well because it is important to show my ability to my family, friends, or others.

<table>
<thead>
<tr>
<th>Item</th>
<th>Pre M</th>
<th>Pre SD</th>
<th>Post M</th>
<th>Post SD</th>
<th>Df</th>
<th>t</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>5</td>
<td>2.426</td>
<td>1.211</td>
<td>2.979</td>
<td>1.343</td>
<td>46</td>
<td>-2.242</td>
<td>.030*</td>
</tr>
<tr>
<td>7</td>
<td>3.298</td>
<td>1.334</td>
<td>3.532</td>
<td>1.231</td>
<td>46</td>
<td>-1.036</td>
<td>.306</td>
</tr>
<tr>
<td>11</td>
<td>3.021</td>
<td>1.242</td>
<td>3.383</td>
<td>1.311</td>
<td>46</td>
<td>-1.597</td>
<td>.125</td>
</tr>
<tr>
<td>13</td>
<td>3.362</td>
<td>1.342</td>
<td>3.702</td>
<td>1.141</td>
<td>46</td>
<td>-1.563</td>
<td>.117</td>
</tr>
<tr>
<td>21</td>
<td>3.468</td>
<td>1.177</td>
<td>3.681</td>
<td>1.125</td>
<td>46</td>
<td>-1.324</td>
<td>.192</td>
</tr>
<tr>
<td>30</td>
<td>2.766</td>
<td>1.322</td>
<td>3.149</td>
<td>1.285</td>
<td>46</td>
<td>-1.845</td>
<td>.071</td>
</tr>
</tbody>
</table>

*p < .05, **p < .001, ***p < .000.

Finding 5

In response to Question 2 (What can this teacher–researcher learn from implementing the GI model under the cooperative learning instruction that will
improve EFL teaching for the students of the vocational high school in Taiwan?), this study shows that the language teacher’s taking into account gender, class levels, and academic majors may support learning in cooperative settings.

Quantitative Results: Repeated-Measures Analysis of Variance

Gender: Descriptive statistics were used to determine the mean and the standard deviation for gender (boys vs. girls) at different times (pretest vs. posttest). Results of this analysis of Motivation Strategies for Learning Questionnaire can be found in Table 18. Scores on motivation to learn among both boys and girls in this study were marked by a mean of 108.06 (SD = 25.84) prior to their cooperative learning experience and a total mean of 120.72 (SD = 23.16) after it, indicating a significant improvement in motivation to learn.

Table 18

Descriptive Statistics for Gender on Pre- and Posttest of MSLQ

<table>
<thead>
<tr>
<th>Gender</th>
<th>M</th>
<th>SD</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pretest</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>M</td>
<td>109.00</td>
<td>29.13</td>
<td>28</td>
</tr>
<tr>
<td>F</td>
<td>106.68</td>
<td>20.74</td>
<td>19</td>
</tr>
<tr>
<td>Total</td>
<td>108.06</td>
<td>25.84</td>
<td>47</td>
</tr>
<tr>
<td>Post-test</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>M</td>
<td>123.14</td>
<td>24.25</td>
<td>28</td>
</tr>
<tr>
<td>F</td>
<td>117.16</td>
<td>21.59</td>
<td>19</td>
</tr>
<tr>
<td>Total</td>
<td>120.72</td>
<td>23.16</td>
<td>47</td>
</tr>
</tbody>
</table>

Note. Summary Table of descriptive statistics for boys and girls on pre- and posttest. These data include the mean number of errors and the standard deviation for each gender group.

In Table 19, the within-subject test indicates a significant effect over time; in
other words, the groups changed in motivation to learn over time \([F (1, 45) = 16.194, p=.000] (p < .000)\). Regarding the interaction of time and gender, no significant difference emerged because the F value associated with the Wilks' Lambda test \([F (1, 45) = .360, p .552]\) had a \(p\) value greater than .05. A significant time effect \((p = .000)\) is apparent, but the interaction of time and gender was not significant \((p = .552)\).

Table 19

Measure: MEASURE_1 Effect of Gender on Within-Subject Tests of MSLQ

<table>
<thead>
<tr>
<th>Source</th>
<th>df</th>
<th>Error df</th>
<th>F-Stat.</th>
<th>(p)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Time</td>
<td>1</td>
<td>45</td>
<td>16.194</td>
<td>.000***</td>
</tr>
<tr>
<td>Time * Gender</td>
<td>1</td>
<td>45</td>
<td>.360</td>
<td>.552</td>
</tr>
</tbody>
</table>

*Note.* Results of the statistical analysis for the 47 participants. The main effect—time—shows a statistical significance at the alpha=.05 level, but the Time * Gender interaction shows no significant difference.

\*\(p < .05\), \**\(p < .001\), \***p < .000. \)

The line graph in Figure 10 shows that groups increased in motivation to learn in their EFL classroom over time. This result indicates that cooperative instruction promoted the improvement of motivation over time in both boys and girls. With higher motivation scores boys seemed to be more interested than girls; however, the lines were notably parallel, making this line graph consistent with the results of the time and gender interaction. The gender variable showed no significant correlation with motivation to learn a language.
Class levels. Descriptive statistics were used to determine the mean and the standard deviation for grade (10th, 11th, and 12th) over time (pretest vs. posttest) with regard to class level. Results of this analysis of Motivation Strategies for Learning Questionnaire appear in Table 20. All 10th-, 11th-, and 12th-grade students showed improvement in motivation to learn with a total mean motivation score of 108.06 ($SD = 25.84$) prior to their cooperative learning experience and a total mean motivation score of 120.72 ($SD = 23.16$) after the experience, indicating significant improvement in motivation to learn.

*Figure 10. Estimated Marginal Means of MEASURE_1 in Gender*
Table 20

*Descriptive Statistics for Class Levels at Pre- and Posttest of MSLQ*

<table>
<thead>
<tr>
<th>Class Levels</th>
<th>M</th>
<th>SD</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pretest</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10th</td>
<td>99.77</td>
<td>28.97</td>
<td>13</td>
</tr>
<tr>
<td>11th</td>
<td>104.80</td>
<td>25.20</td>
<td>10</td>
</tr>
<tr>
<td>12th</td>
<td>113.92</td>
<td>23.88</td>
<td>24</td>
</tr>
<tr>
<td>Total</td>
<td>108.06</td>
<td>25.84</td>
<td>47</td>
</tr>
<tr>
<td>Posttest</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10th</td>
<td>122.39</td>
<td>24.26</td>
<td>13</td>
</tr>
<tr>
<td>11th</td>
<td>126.20</td>
<td>27.01</td>
<td>10</td>
</tr>
<tr>
<td>12th</td>
<td>117.54</td>
<td>21.33</td>
<td>24</td>
</tr>
<tr>
<td>Total</td>
<td>120.72</td>
<td>23.16</td>
<td>47</td>
</tr>
</tbody>
</table>

*Note.* Summary of descriptive statistics for class levels on pre- and posttest. These data include the mean number of errors and the standard deviation for each class.

In Table 21, results for class levels reveal a significant main effect associated with time as shown $[F(1, 45) = 30.054, p = .000]$ ($p < .05$). In other words, the cooperative learning instruction worked for the 10th-, 11th-, and 12th-grade students in improving their motivation to learn a language. For the interaction of time and group, the class level variable is significant because the F value associated with the Wilks’ Lambda test $[F(1, 45) = 5.806, p = .006]$ also has a $p$ value smaller than .05; therefore, class levels affect students’ motivation to learn a language in the EFL context. To emphasize, a significant main effect is associated with time ($p = .000$) as well as with the interaction of time and class levels ($p = .006$).
Table 21

*Measure: MEASURE_1*  
Effect of Class Levels on Within-Subject Tests of MSLQ

<table>
<thead>
<tr>
<th>Source</th>
<th>Df</th>
<th>Error df</th>
<th>F-Stat.</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Time</td>
<td>1</td>
<td>45</td>
<td>30.054</td>
<td>.000***</td>
</tr>
<tr>
<td>Time * Class Levels</td>
<td>1</td>
<td>45</td>
<td>5.806</td>
<td>.006**</td>
</tr>
</tbody>
</table>

*Note.* Results of the statistical analysis for the 47 participants. The time main effect was statistically significant with alpha=.05 level as was the interaction of time * class levels.

*p < .05, **p < .001, ***p < .000.*

In Figure 11 a line graph shows changes in groups over time and in various ways. The lines representing 10th and 11th graders are parallel and intersected by the lines representing 12th graders, showing a significant difference from Time 1 (pretest) to Time 2 (posttest). Both 10th and 11th graders followed a similar trend, but notably cooperative learning instruction worked better for 12th graders at Time 1. Both 10th and 11th graders showed much improvement in motivation to learn, but the 12th graders showed only slight improvement from Time 1 to Time 2. Why didn’t the 12th students show greater improvement from Time 1 to Time 2 than the others? The reason may be that those 12th graders were distracted by their preparation to graduate in June and paid less attention to schoolwork; however, 10th and 11th graders needed to perform well academically in order to continue their high school education.
Regarding academic majors, descriptive statistics were used to determine the mean and the standard deviation for academic majors (culinary arts and other) over time (pretest vs. posttest). Adequate sample size yields statistical inferences effectively (Maxwell & Delaney, 2003) and presents a diversity of perspectives (Bogdan & Biklen, 2003); typical sample size is 30 (Borg & Gall, 1979). In the present study, a small number of subjects—the six information technology majors and the nine infant and child care majors—were combined to form a larger group called “other.” Finally, data for two groups (culinary arts and other) were analyzed, and the resulting difference in motivation to learn is shown in Table 22. Majors in both culinary arts and other show improvement in motivation to learn with total mean motivation scores of 108.06 ($SD = 25.84$) prior to their cooperative learning experience and total mean motivation scores of 120.72 ($SD = 23.16$) following the cooperative learning experience, indicating a significant improvement in motivation to learn.

Figure 11. Estimated Marginal Means of MEASURE_1 in Class Levels
Table 22

Descriptive Statistics for Academic Majors at Pretest and Posttest of MSLQ

<table>
<thead>
<tr>
<th>Major</th>
<th>M</th>
<th>SD</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pretest</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Culinary Arts</td>
<td>109.88</td>
<td>29.26</td>
<td>32</td>
</tr>
<tr>
<td>Other</td>
<td>104.20</td>
<td>16.61</td>
<td>15</td>
</tr>
<tr>
<td>Total</td>
<td>108.06</td>
<td>25.84</td>
<td>47</td>
</tr>
<tr>
<td>Posttest</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Culinary Arts</td>
<td>121.59</td>
<td>22.97</td>
<td>32</td>
</tr>
<tr>
<td>Other</td>
<td>118.87</td>
<td>24.26</td>
<td>15</td>
</tr>
<tr>
<td>Total</td>
<td>120.72</td>
<td>23.16</td>
<td>47</td>
</tr>
</tbody>
</table>

Note. Summary of descriptive statistics for academic majors on the pre- and posttest. These data include the mean number of errors and the standard deviation for each academic major.

The within-subject test (Table 23) indicates a significant time effect; in other words, the groups changed in motivation to learn over time \[F(1, 45) = 16.731, p = .000\] \(p < .05\). Cooperative learning instruction worked for students pursuing both culinary arts and other academic majors. For the interaction of time and major, no significant difference is apparent because the \(F\) value associated with the Wilks’ Lambda test \[F(1, 45) = .209, p = .650\] has a \(p\) value greater than .05, meaning that the academic majors of students in the study do not significantly correlate with their motivation to learn a language in the EFL context. Again, a significant main effect is associated with time \((p = .000)\), but the interaction of time and major was not significant \((p = .650)\).
Table 23

Measure: MEASURE_1 Effects of Majors on Within-Subjects Tests of MSLQ

<table>
<thead>
<tr>
<th>Source</th>
<th>df</th>
<th>Error df</th>
<th>F-Stat.</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Time</td>
<td>1</td>
<td>45</td>
<td>16.731</td>
<td>.000***</td>
</tr>
<tr>
<td>Time * Major</td>
<td>1</td>
<td>45</td>
<td>.209</td>
<td>.650</td>
</tr>
</tbody>
</table>

Note. Results of the statistical analysis for the 47 participants. The time main effect was statistically significant at the alpha=.05 level, but the Time * Major interaction was not significant.

*p < .05, **p < .001, ***p < .000.

In Figure 12, a line graph shows the academic major groups that increased in motivation to learn a language over time. The results indicate that cooperative instruction worked better for culinary arts majors than for others in improvement of motivation over time. The parallel lines are consistent with the finding that the interaction between major and time is not significant, indicating that the variable of academic major is not significant. Overall, the culinary arts majors seemed to be more interested than students in other academic majors in improving their motivation.
Discussion of Research Finding 5

Gender

With regard to gender differences in motivation, outcomes may vary with cultural background and teachers’ attitudes toward students in the EFL classroom. For instance, why do boys improve more than girls? First, the boys in this study had been in my class before and knew me well; however, the majority of the girls had never been in my class, so they may have needed more time to adapt themselves to this new learning environment. Nelson (1990) investigated teachers’ attitude toward male and female students in the classroom, finding that teachers tend to call on and coach male students more frequently while teaching, consistent with her observations. I had more interaction with the boys because 28 of the 47 students, the majority of the participants in the study (60%) were male. Furthermore, most people believe that boys are tough and girls are obedient (Nelson, 1990) and that girls are more self-motivated and responsible than boys (Honigsfeld & Dunn, 2003).

Such beliefs are consistent with some Asian families’ gender expectations of
male and female children. In traditional Chinese culture, girls are expected to exhibit appropriate behavior and present friendly personalities; boys are expected to be more active and disobedient. In order to eliminate inappropriate behavior by the boys in the classroom, I needed to supervise boys all the time in order to strengthen appropriate behavior in my EFL classroom. In addition, Lorri (2005) compared both male and female students’ social behavior in an EFL classroom and found that male students prefer to work with a peer or a group more than female students. As a result, teachers should be aware of learning styles and gender in the EFL context and distribute their attention to the behavior of boys and girls equally (Simpson & Erickson, 1983).

Class Levels

Both 10th- and 11th-grade students in this study improved to a greater degree than 12th-grade students, showing that class levels play a role in changing motivation to learn a language. In addition, the interaction of motivation and class level indicate that older students present lower motivation than younger students. In other words, this study shows statistical significance for the interaction of time and class levels. Class levels affect second-language acquisition. Masgoret and Gardner’s (2003) report supported the view that age and experience of the students have moderating effects in language learning achievement, attitudes, and motivation. In their study, elementary students showed higher motivation than secondary and university students in second language learning; however, their study did not delineate relevant reasons but instead emphasized anxiety as one of the key factors in developing learners’ higher motivation in language. MacIntyre et al. (2003) investigated 286 seventh-, eighth-, and ninth-grade French immersion students in Nova Scotia and found that Grade 7 students presented the highest motivation in learning French, but they
believed themselves inadequately competent and presented less frequent communication in French than students in Grades 8 and 9 perhaps because the pubescent seventh-grade students had less experience and felt more anxious in learning a new language than the Grade 8 and 9 students.

My research results are inconsistent with those of Kormos and Csizer (2008), who investigated secondary, college, and adult language learners’ motivation to learn English as a foreign language in Hungary. They found that the university and adult language learners had clear goals, so they presented higher levels of motivation and paid more attention to language learning compared to secondary school pupils. Compared with their study, my research results in analyzing the students’ pre- and post-MSLQ surveys show that 12th-grade students do not have more positive attitudes toward learning English than 10th- and 11th-grade students perhaps because they have not achieved their desired proficiency in three years of English learning experiences in their high school education. Based on my review of literature and my self-study, the results show that age influences the motivation to learn a language; thus, language teachers should be aware of students’ performance and reaction to learning English. Students with more years of language learning experiences do not present positive motivation or attitudes unless appropriate guidance and encouragement by teachers have restored their confidence. As a result, they have clear, positive goals about language learning.

*Academic Major*

As to the relationship between academic majors and the development of motivation to learn a language, little research is available on the relevance of academic majors to second language acquisition. This issue deserves exploration in
A further review of students’ interview responses on their feelings about learning English indicates that the majority (73%) of the participants agree that English is important to learn for travel abroad so they can communicate with foreigners, and 23% believe that English is important in the search for better jobs. Only 2% of the participants saw passing tests as the reason to learn English. Students’ interview responses show that the primary motivation to learn English tends strongly toward both integrative and instrumental goal orientation, an idea proposed by Gardner and Lambert (1972). Integrative motivation involves the desire to use the target language to interact with people and appreciate the culture of the country. Instrumental goal orientation involves learning a language to apply for a higher paying job based on language ability or passing an examination.

A 12th-grade student had a part-time job at a movie theater on weekends. She felt frustrated by her inadequate English ability and avoided conversations with foreigners. She said:

I have been studying English since I was in the fourth grade, but I still cannot speak English with the foreigners at my workplace. I hope I can learn some simple conversation in English class. Then I won’t be afraid to speak with foreigners, but I will be able to talk more confidently with them. (Interview, 0509)

Task value orientation motivation. Moreover, reviewing students’ Motivation Strategies for Learning Questionnaires (MSLQ), I also concluded that students strongly support the language learning tasks, which should be evaluated as important and useful so that they are more likely to engage in the task and put their best efforts
to work on it. As can be seen in Table 24, the statistical results indicate the task value posttest scores were significantly higher, \( M (23.57) \), than the pretest, \( M (25.60) \), with a difference of 2.03. A significant increase is shown in their motivation scores in task value, \( t (46) = -2.69, p = 010 \) with the \( p \)-value as low as .01.

Table 24

<table>
<thead>
<tr>
<th>Task value</th>
<th>N</th>
<th>( df(46) )</th>
<th>( M )</th>
<th>( SD )</th>
<th>( t )</th>
<th>( p )</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pretest</td>
<td>47</td>
<td>46</td>
<td>23.57</td>
<td>6.21</td>
<td>-2.69</td>
<td>.010*</td>
</tr>
<tr>
<td>Posttest</td>
<td>47</td>
<td>46</td>
<td>25.60</td>
<td>5.86</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

\*\( p < .05 \), \**\( p < .001 \), \***p < .000.

Teachers should keep in mind that a lack of task-oriented curriculum in the EFL classroom can reduce students’ interest. In addition, the teacher should encourage students to become more motivated to learn a language by designing appropriate tasks relating to the target language and its culture. As a result, students are willing to use the target language for communication (MacIntyre, Clement, Dornyei, & Noels, 1998). Finally, teachers need to provide tasks that connect with students’ personal lives and interest orientations (Mori & Gobel, 2006; Stewart-Strobelt & Chen, 2003), in other words, to teach students with practical language for everyday use.

Chapter Summary

The results of this study provide new insights into the role of cooperative learning instruction help the EFL teacher for promoting low-achieving learners’ motivation to engage in language learning in an EFL classroom. Those students who qualify as low-achieving learners need more support from the teachers and sufficient
time to adjust themselves to a new language learning environment in cooperative settings (Tan & Lee, 2006). Language teachers must also note the importance of dividing students into interest groups where they can receive tutoring by capable peers, incorporating multiple intelligences (MI) theory to increase students’ desire to learn, using computer technology as a medium and reward to increase students’ interests, and providing language learning strategies for vocabulary acquisition while learning in cooperative learning contexts. In addition, language teachers should also consider incorporating students’ first language into the language learning process so that they understand the tasks and are able to convey or deliberate their ideas for further discussion. Finally, gender difference (Wilson et al., 1994), class level differences (Kormos & Csizer, 2008; Wentzel, 1996), academic major variables, and students’ past learning experiences (Fukuchi & Sakamoto, 2005) may be factors affecting students’ motivation to learn English as a subject (Stewart-Strobelt & Chen, 2003) in EFL contexts. In the following, I have presented a clear table (See Table 24) including the research findings, research questions, and the instruments which were used in the study.
CHAPTER V
CONCLUSIONS AND IMPLICATIONS

The purpose of this study was to investigate students’ learning motivation in a cooperative learning community in an EFL classroom, in which the group investigation (GI) model (Sharan & Sharan, 1992) was implemented as part of cooperative learning instruction. Within the context of action research, the GI model improved low-achieving language learners’ motivation to learn English as a foreign language. Although numerous studies have illustrated the effects of cooperative learning instruction in foreign language classrooms (Allen, 2006; C.-C. Chang, 2005; Ghaith & Shaaban, 2005; Shaaban, 2006; M.-H. Shao, 2005; Tan & Lee, 2006; Yeh, 2004) and especially those in vocational high schools in Taiwan (S.-C. Lu, 2003; Y.-W. Chang, 2003), many who taught English as a foreign language in Taiwan at the time of this writing still had difficulty incorporating this instructional approach into their classrooms. Thus, I examined the considerations necessary to design and implement cooperative learning in EFL classrooms with vocational high school students in Taiwan.

In the remaining sections of this chapter, I have presented the conclusions derived from the findings of this study and assessed them through self-reflection. Then, I have discussed the pedagogical implications of these findings for implementation in teacher training programs for vocational high school English teachers in Taiwan. Finally, I have made recommendations for future research.

Conclusions

Following 15 weeks of action research, the results of this study show promise that practicing the teaching skills of the GI model applied in the context of
cooperative learning instruction increase these students’ motivation to learn a language as well as develop more positive attitudes in action research context.

Based on the GI model, initially conceived by Thelen (1981) and extended by Sharan and Sharan (1992), students typically work in heterogeneous groups during the first phase of cooperative learning instruction. In my study, I dealt with two different types of heterogeneous groups (a) teacher-selected heterogeneous groups and (b) interest- and familiarity-based heterogeneous groups. Teacher-selected heterogeneous groups consist of group mates of mixed genders, class levels, academic majors, and English academic proficiencies. The interest- and familiarity-based heterogeneous groups consist of students who are friends and acquaintances from the same class levels and academic majors but of mixed genders.

Students are supposed to work together to maximize their own and one another’s learning in cooperative settings; however, when I observed students’ behaviors in groups, I found that students are anxious working in teacher-selected heterogeneous groups. For example, I observed an 11th-grade male student sit quietly without participating in group discussion. He explained his difficulties when working in a teacher-selected heterogeneous group, stating that his poor English ability caused him to lack confidence and feel nervous working with the group members he did not know. He continued to explain that his group leader, a 12th-grade female student, was very serious in her demeanor, so he felt anxious working with her. In addition, I also found that students are unwilling to communicate with group members in the teacher-selected heterogeneous groups.

A 12th-grade group leader explained that he did not like all of those 10th- and 11th-grade students for personal reasons, and he did not want to make new friends;
therefore, no one spoke in his group. The group leader is supposed to structure the

group work, but he insisted on working individually without positive interaction with
group members. I also found that more talented members, normally the group leaders,
do all the work in teacher-selected heterogeneous groups. A 12th-grade group leader
explained why she took charge of the group work, ignoring other group members. She
said it would be easy for her to work with other classmates, not these group members
whom she did not know.

The majority of students, however, are willing to confront the new learning
tasks, have positive attitudes toward interaction, and develop harmonious
relationships in the interest- and familiarity-based heterogeneous groups. A common
situation I found is that the group leaders are comfortable asking questions, clarifying
ideas, supervising group discussions, and assisting group mates experiencing
difficulties in English during tasks. The group members also contribute their ideas on
member participation and support and encourage one another to engage in learning
activities in a cohesive learning environment.

These positive outcomes of the cohesive learning environment are consistent
with Krashen’s (1981) affective filter hypothesis. He claimed that second-language
acquisition happens only when the learners have high motivation, self-confidence, and
a low level of anxiety. Stroud and Wee (2006) investigated the correlation between
anxiety and second language learning, finding that students feel nervous and tense in
learning a language because of shyness and perceptions of their own inadequacy in
language performance. They suggested that language teachers should use varied
approaches to language teaching. For instance, the teacher should include more peer
interaction in instruction, so students feel less nervous and more willing to challenge
themselves for language learning; moreover, the teacher should give supportive feedback to create harmonious relationships between students and teacher. As a result, the students exhibit greater willingness to ask questions, interact with one another, and learn a new language in EFL contexts.

Chinese cultural attitudes toward human relationships may also explain why my students were unwilling to communicate and resisted group interaction in teacher-selected heterogeneous groups in the EFL context. Specifically, losing face is a concern, which requires people to present best behaviors and avoid poor performance, so no one laughs at or ridicules them if they make mistakes (Wen & Clement, 2003). Oral presentation is a good example of the difficulty and challenge inherent in learning language for the majority of EFL students in Taiwan; they do not want to risk making mistakes and losing face. As detailed in chapter three, a 12th-grade female student came to my office to explain her difficulties and negotiate with me about substituting an alternate activity for the required presentation in front of classmates she did not know. I agreed to excuse her from representing her group as a speaker; instead she was responsible for standing with her group members and holding the poster as an assistant. Chinese students require a long time to feel comfortable enough with unfamiliar people to work well together. They also find a challenge in adjusting to a new learning environment because they have been accustomed only to a teacher-centered style, primarily lecture.

During the second stage of cooperative learning, students are typically required to plan and expand research tasks with group mates after they are assigned into small groups. Whether they are assigned into teacher-selected heterogeneous groups or interest- and familiarity-based heterogeneous groups, the majority of
students consider this group discussion time-consuming because they must reconceptualize their tasks presented in English to Chinese. They perceive the difficulty in facing several challenging tasks during cooperative instruction; however, students’ responses on the individual interviews reveal that the majority of students like to work in groups instead of individually. They do not feel alone when facing challenging tasks because they can discuss, share ideas, and get help from one another instead of solving the problem individually. They also claim that working in groups facilitates learning, teaching one another, and gaining social interaction skills. Two 10th-grade students—a male and a female—responded with enjoyment when assigned to work in groups because they made new friends and received some useful suggestions to improve their entire vocational high school life experience.

Although all participants generally express satisfaction with what they did and contribute their efforts during task engagement, the participants’ poor English performance often hinders the processes of group work. This affects especially the students with insufficient vocabulary and minimal experience in English reading, which preclude conversation or further exploration of the topic.

In order for learners to understand teachers’ instructions, teachers must not only slow down instruction and lecture in Chinese but also add some supplementary teaching materials, first and foremost, visual aids. From newspapers I cut out some pictures of individuals, such as our vice president, singers, and film star Jackie Chan. When I showed a picture of Chien-Ming Wang, the Taiwanese baseball player now pitching for the New York Yankees, I introduced a new sentence for students to read aloud: “Who is he? He is a baseball player.” In addition, I drew some pictures on one side of a poster and wrote English spelling on the other side to extend students’
learning of new vocabulary.

Second, I brought in some reference books covering various topics from my local library or resources I had on my personal bookshelves, such as English versions of children’s picture books and an encyclopedia in Chinese or English. The library at the vocational high school in this study was located in someone’s private office, and it was not open when the librarian had classes; so it was available to teachers only on a limited basis.

Third, I also gathered some technology equipment. I brought my own CD player to my classroom because I was familiar with its operation. I also presented my lessons on PowerPoint with colorful images to pique the interest of my students instead of showing them black-and-white handouts. Furthermore, I adopted peer tutoring with teacher modeling to promote progress for learners in language acquisition.

Finally, the results illustrate students’ progress in an EFL classroom. Students gradually use listening, speaking, reading, and writing in various modes to communicate in English. They especially enjoy watching YouTube videos in English. They no longer feel nervous when they are required to listen repeatedly to English songs until they can fill in the blanks with missing lyrics in English in the cooperative setting. They also develop an interest in reading by browsing encyclopedias in both English and Chinese. Furthermore, students’ English vocabularies increase in their writing. Grammatical errors still persist in their papers, but they are more eager to write by using an online dictionary or asking for help from the teacher. They occasionally insert English words during their oral presentations in Chinese. Overall, students present higher motivation, deeper interest, and more positive attitudes about
learning English, all of which I hoped to see in my EFL classroom. Hence, I can spend more time on structuring my lessons effectively instead of managing classroom behavior, such as continually waking up sleeping students, confiscating their MP3 players, or stopping off-task dialogue.

Cooperative learning instruction requires considerable preparation time, professional training, and technical support (M.-L. Chen & Squires, 2007) to integrate group work into courses successfully. In analyzing students’ pre- and post- MSLQ surveys, I found that the participants in this study show higher intrinsic motivation when they expect their English class to be interesting and fun. With this in mind, I present lessons in innovative ways by providing a more comprehensive reading context and incorporating Gardner’s (1993) theory of multiple intelligences in my cooperative learning instruction throughout the course. For instance, I introduced a short story entitled *The Giving Tree* (Silverstein, 1964) via a PowerPoint presentation and invited two 12th-grade students with proficient English pronunciation skills to help me present the lesson. They read aloud and played the PowerPoint slide presentation to illustrate the story because I knew some students are uninterested in reading words. Providing illustrations to accompany the words increases reading comprehension for those low-achieving language learners.

As a whole, both the high and low achievers make progress in English learning motivation in the cooperative setting in an EFL classroom. High achievers incorporate more English into their writing, and low achievers respond incidentally in English instead of speaking mostly in Chinese during their interviews. Seeing each student contribute her or his efforts in group work and make progress in the EFL classroom is highly gratifying to the teacher.
Language teachers must carefully design cooperative learning instruction in an EFL classroom in vocational high schools in Taiwan. First, the teachers must consider the culture of the EFL classroom, including gender, class levels, and academic majors. Regarding gender, teachers may find as I did that boys exhibit a higher motivation to learn than girls. In terms of class levels, 10th- and 11th-grade students continue to make progress because they need to perform well and earn high grades in English; however, 12th-grade students show only a slight improvement in motivation to learn because they are set to graduate and pay less attention to schoolwork. Students in culinary arts and other majors (including infant and child care and information technology) show improvement in motivation to learn because they expect themselves to use what they learn in the EFL classroom in their workplace.

Second, language teachers should be aware of adolescents students’ favorite activities outside school (Alvermann, 2006) and incorporate their interests into the curriculum to improve motivation. Students’ background surveys indicate that playing computer games is their major after-school activity, so language teachers should use the power of evolving technologies to engage students in rich and diverse learning environments to meet the needs of the 21st century (Burke, 2007).

In this study, the results also show that the motivation of the majority of students to learn English increases significantly when students were immersed in target language learning environment by the medium of computer technology in the EFL curriculum. Students feel less stress working on reading comprehension because they can use online dictionaries. They can also obtain information about hot topics, such as global warming and climate change, by watching PowerPoint presentations or YouTube videos. Unfortunately, poorly functioning computers can limit teaching
practice and frustrate students; consequently, language teachers must have some knowledge of advanced technology to be able to supplement instruction effectively with computers. Based on the foregoing findings and my own reflection on this study, pedagogical implications for language teachers in EFL classrooms follow.

Reflections on This Study

Mills (2007) asserted that action research is a self-reflection procedure. Researchers spend time considering what they learn from their research findings, what suggestions and actions they decide to implement in preparing their next lessons, and what to share with others who experience similar problems and have expectations for better outcomes in their classrooms.

Using Research Skills

Taking time to think in depth about what I learned from this study, first, I found that I have benefited from the research process. I have grown more confident in conducting an action project and I learned more about action research skills. Although I was stricken with some anxiety facing a daunting and complicated database, I sought help and step-by-step guidance from my advisors and ultimately settled on a clear image of the findings of this study.

I came to care for low-achievers’ language learning issues while working in vocational high schools in Taiwan. Concerned with the negative attitudes of my students, as shown by sleeping, listening to MP3 players, chatting with one another, and working on assignments for other classes in EFL class, I initially placed blame squarely on them. I reprimanded them because they did not follow my directions, particularly irksome when I had spent all night preparing my lesson plan. I remained frustrated until I was introduced to the notion of what the curriculum is and does
(Hyun, 2006) in my Ph.D. program at Kent State University. During this study, I have therefore adjusted my perspective to see learning and teaching from the students’ points of view. I reflected on my actions in previous instruction and tried to do something different in each successive lesson in order to carry out effective teaching for me and learning for all students. In the following, I have presented what I learned from my study.

Practicing Constructivist Pedagogy

Cooperative learning, based on constructivist learning theory (Jurcenko, 1997), occurs when learners interact with data, people, society, and the environment around them (Hein, 1991). First, in my EFL classroom, I changed my role to that of facilitator to help students learn how to learn a new language. I also lectured less and instead spent time moving from group to group, discussing with them or giving assistance when needed, allowing students to deliberate ideas and develop critical thinking instead of simply taking notes from a lecture throughout the whole class without thinking. Confucius said, “Learning without thought is lost; thought without learning is perilous” (Legge, 1861/1966). A good language teacher knows that teaching should not merely transmit knowledge to students; they should be able to make judgments and put into practice what they have learned in the classroom. Such a teaching philosophy also responds to Vygotsky’s (1930/1978) notion of scaffolding. Vygotsky claimed that for maximal learning to occur, the teacher must realize that what our children do with peer tutoring or teacher modeling today, they can do by themselves tomorrow.

Cooperative learning instruction focuses on student-centered instruction. Student-to-student interactive learning activities also facilitate the development of
students’ social skills development (Ewald, 2004). The peer-interaction approach may not be easily achieved in the traditional teacher-centered classroom. A review of the participants’ interview responses on traditional teaching approaches used in the language classrooms indicates that they believe that the traditional approach fails to support their language performance and leads to negative attitudes toward learning English. In summary, adjusting roles to those of guide or facilitator and delivering student-centered instruction may pose a challenge to language teachers.

**Understanding Classroom Culture**

At the time of this writing, the content of the curriculum for middle and high school students in Taiwan strongly emphasized academic performance and competitive-oriented learning activities. Hence, during the typical school year, most schools administer school-wide examinations at least twice a year to evaluate students’ performance during the year. In addition formal or informal tests are given several times per week in each classroom, putting students under considerable pressure from their parents and teachers to engage in academic drill.

For average language learners achievement-oriented and test-oriented language learning activities present difficulties. Even if the low-achieving language learners achieve some degree of success, they are still far behind in terms of their academic achievement in English. Ultimately, they lose confidence and give up. When I interviewed a 12th-grade male student, he said that he was frustrated and had already given up studying English. He had not achieved good English academic outcomes since he was in the seventh grade and, therefore, believed it was too late to improve his grasp of English, so all he could do is pay more attention to other subjects, such as Chinese, so he might at least have the opportunity to apply for admission to a
technical college after graduation. Through this study, I found that the common features in the EFL classroom are students’ negative attitudes toward learning, lack of confidence, and low motivation in the language learning process, issues that present major challenges for language teachers trying to build the best learning environment possible in which their students can achieve the desired results.

Of course, it is necessary for language teachers to understand the culture in their EFL classrooms, honoring and listening to their students’ voices for the benefit of classroom practice (Alder, 2000). During this study, I tried to understand students’ difficulties and hear their voices during classroom observation, the survey process, and individual interviews. I realized that students’ shyness interferes with their presenting themselves in front of others because they fear negative responses from classmates. Furthermore, Asian parents have high expectations for their children, not only for success in their schoolwork but also for bright futures of which their families can be proud. Consequently, no room remains for failure, only success by working hard even when the chances of success are low. According to the results of pre- and post- Motivation Strategies Learning Questionnaire (MSLQ), students’ attitudes toward self-efficacy show that they avoid engaging in challenging tasks, hence reducing the chances of making mistakes and becoming the target of teasing by other learners.

As a result, students’ opinions are now the fundamental principles guiding my actions for developing my teaching. I value the students’ critiques of my teaching even if some of their responses hurt my feelings. For instance, a 10th-grade student told me that she was accustomed to learning English by taking notes and listening to the teacher interpret reading content word-by-word. She said she was not learning
from my teaching strategies. On the contrary, I was encouraged by some students’ positive reactions to my EFL teaching; for example, two female 12\textsuperscript{th} graders said they understood my intentions and appreciated everything I did in the class to help them learn English.

\textit{Building a Warm and Caring EFL Classroom}

In order to raise students’ motivation and confidence in language learning, I tried to help them by building a supportive learning environment and a trusting relationship between them and me in my EFL classroom. The first thing I did was to encourage them by sharing my personal language learning experience when I studied in the USA. I introduced the stories of famous people, such as singers and TV reporters, and students whom they knew well. We felt absolutely the same: All of us knew those emotional insecurities and had frustrating experiences. We used them to sustain a sense of community. Then, I reflected upon my behaviors and reminded myself to be a patient and caring language teacher so that students are able to reduce their anxiety about learning a foreign language (Cheng, 2005) and make an effort to learn English; students recorded their reflections by writing journal entries after class. Furthermore, I used this writing assignment as a communication tool to give supportive feedback on students’ efforts, based on Noddings’ (2005) pedagogy of caring and in response to Krashen’s (1981) affective filter hypothesis about providing friendly, safe learning environments and building learners’ self-esteem and confidence in second language acquisition.

\textit{Broadening Students’ Perceptions about Learning English}

Interviewing students, I was unsurprised to hear that learning English is not a high priority for them at this time in their high school years. They think the only
purpose of learning English is to pass a class and apply for a better job. They have no clue that by learning English they can effectively communicate with someone who speaks English, understand other cultures, and extend their views to accommodate internationalization. The research result confirmed the findings of Kormos, & Csizer’s (2008) study. Their study identified the older age groups, such as the university students and adulthood, maintained higher motivation behavior in learning English and presented international views compared to secondary school pupils. Students’ perceptions of learning English need to be raised by convincing them that learning English has meaningful uses. Teachers must teach English as a school subject that connects with students’ lives (P. S. Carroll, 1998) and needs for their future careers. As a result, learning can become more meaningful for students, and teaching can help teachers develop professionalism.

Developing Cooperative Learning Skills

During this study both students and I spent quite a while adjusting ourselves to studying English through cooperative learning instruction because we were unfamiliar with or lacked skills at practicing cooperative learning instruction. For me, I first learned to ask “wh-” questions instead of yes–no questions. For instance, to motivate students’ positive interactions and responses in class, I learned to ask “What happens if we do nothing about it. . . ? What would you do if we start to . . . ?”

The group investigation model focuses on the teacher’s inquiry questions to spark students’ intrinsic motivation to learn (Sharan & Sharan, 1992). As a result, we can have deeper discussion on a topic and use higher-level thinking skills. I also learned to deliver task requirements clearly, using supplemental material, such as step-by-step instructional worksheets or demonstration of the final product, so
students understand without confusion.

Students grow accustomed to this new language learning environment by working with group mates instead of learning individually. Applying cooperative learning instruction with students who present lower English ability is problematic (M.-K. Chen & Squires, 2007) because they have experienced years of teacher-centered instruction instead engaging in active learning. Generally, it takes a year of practicing the cooperative learning technique for teachers to become competent and implement this approach into the classroom successfully (Slavin, 1995; Sharan & Sharan, 1992). In summary, because practicing cooperative learning instruction in the classroom is challenging (Johnson & Johnson, 1994), language teachers must provide more guidance and assistance for students when they learn English in cooperative learning settings.

Expanding the Classroom Learning Community

Not only did students and I build good relationships in class because of the cooperative learning experience, but also I received help and support from my colleagues. Some common problems and challenges I faced in my EFL classroom include the following: First, 47 students working in a cooperative classroom can be very noisy, so in order to respect other teachers and students, I reminded my students about reducing their volume when working in groups. I also communicated with other teachers whose classrooms were nearby and who might be disturbed by us. After talking to other teachers, they understood what I was doing and what was happening in my classroom.

I also received help when I incorporated computer technology into my EFL classroom. I used the computer as one of my teaching aids to introduce the lesson and
illustrate tasks with PowerPoint presentations. Students used the online dictionary to search for related information. A 12th-grade male student majoring in information technology was assigned by the head of information technology department at the school to set up the computers before I started the class. Thus, I did not need to worry about technical issues but simply insert my jump drive or click hyperlinks to present my lesson. One purpose of the study was to build a sense of learning community shared by students and teacher beyond the classroom. In fact, this learning community seemed to extend from my EFL classroom to the relationship between school colleagues and me.

Students’ Progress in the EFL Classroom

I was grateful to see things change in my EFL classroom during my 15 weeks of action research. I was happy to see some sleeping students finally wake up and concentrate on their tasks by browsing related reading materials to seek out new information and engaging in computer tasks. The level of noise in class rose, but it came from on-task talking. I was satisfied to observe how group mates encourage and learn from one another. Low-achieving learners especially imitate their group leaders’ learning experiences and skills to improve their own learning attitudes and outcomes.

An 11th-grade male student devoted himself eagerly to practice his script and make it perfect so that he could achieve a clear and correct pronunciation during the role-playing activity. Moreover, I was pleased to see that students value their work, often asking me to allow them to take their work home so they could have more time to work on it, returning exquisite creations. Finally, to my great joy, I received encouragement from my school principal: “Teacher Chen, good job!” This comment was inspired by a 10th-grade student, who wrote in his weekly journal about his
interest in attending my EFL class.

Concluding Three Components for an Ideal EFL Classroom

What makes an effective EFL teacher? What should we do as teachers to present our lessons so students remain interested, not bored, and actively involved in the learning tasks at hand? I have concluded that an ideal EFL classroom should maintain three components: (a) constructivist pedagogy, (b) caring, and (c) reflection and action.

First, language teachers should consider the constructivist pedagogy their fundamental principle and subscribe to the notion that teaching and learning must be based on the students’ points of view. According to Vygotsky (1986), sociocultural perspectives, claimed that peer sharing and teacher-scaffolding instruction in the classroom help learning development effectively. Cooperative learning results from practicing constructivist pedagogy and organizing students into small groups to work together. C.-C. Chang (2005) found that low-achieving language learners present higher motivation to contribute their abilities and take responsibility in groups because working in groups relieves the stress normally falling on the individual when facing challenging tasks (Hilt, 1992). In addition, the language teacher may also have to provide other strategies, such as inquiry-based questions and peer tutoring during the class, to develop students’ thinking skills and create interactive dialogues for students to help one another.

The second component of an ideal EFL classroom is developing a caring atmosphere in which to motivate low-achieving language learners. Language teachers should reflect upon their actions by observing students’ reactions and listening to them. Knowing students well influences the decisions teachers make when planning
classroom activities (Kasten, Kristo, & McClure, 2005) and allows them to discover teaching approaches best suited to their particular students and classrooms (Alder, 2000). By interviewing individual students, I have come to realize that students’ prior language learning experiences affect their attitudes toward learning and their willingness to engage in learning tasks in an EFL classroom. Therefore, knowing that students like to play computer games after school, I organized lessons that minimize students’ fear by integrating the computer into language learning activities. As a result, students feel less stress with reading comprehension when working with the online dictionary or using hyperlinks to search for related information and maximize their knowledge of the topic and other experiences. Furthermore, language teachers should build a coherent language learning environment by giving supportive and encouraging feedback; students need a great deal of encouragement from teachers to validate their efforts. When they receive such validation, students are willing to spend time engaging in learning tasks (Mercado & Moll, 2000).

The last component of the ideal EFL classroom should be to consider language teachers as researchers to inquire, reflect, and act (Patterson & Shannon, 1993) in their classrooms. Teachers act as researchers to inquire about our students’ lack of excitement about the way we teach in our EFL classrooms. Why are our students reluctant to learn? Then teachers should reflect on students’ learning and their own actions through classroom observation and a self-reflective journal in order to make professional judgments that help students learn (Patterson & Shannon).

In summary, an ideal EFL classroom should unconditionally include three tenets: (a) constructivist pedagogy, (b) caring, and (c) teachers as researchers. If these tenets are implemented, the problems I have dealt with in the past—students sleeping,
listening to MP3 players, and working on off-tasks assignments—can be reduced. In a classroom in which those tenets are in place, students are willing to take risks to challenge themselves in learning English. In Figure 13, I have depicted some factors that contribute to an increase in students’ motivation to learn in the ideal EFL classroom.

*Figure 13. Three Components for an Ideal EFL classroom*
Pedagogical Implications

Advocating Cooperative Learning Instruction in the EFL Classroom

Students present positive attitudes and motivation to participate in language learning tasks in cooperative settings, where even low-achieving learners obtain assistance from their group mates. Specifically, capable peers can provide explicit guidance with vocabulary recognition when others are confused about the reading contents or task. The low-achieving learners are motivated to participate in learning activities with the guidance and encouragement of group mates. Ideally, all students take responsibility and contribute their efforts to work in their groups.

These findings imply that cooperative learning is an effective EFL teaching and learning method that can improve vocational high school students’ motivation to learn English. S.-C. Lu (2003) obtained similar results when she investigated 80 female vocational high school students’ perceptions of learning English through the cooperative learning instruction in Taiwan. Language teachers should incorporate cooperative learning instruction into their language curricula so that students have the opportunity to create dialogues, develop their thinking skills, and become active participants while working in small groups (P. S. Carroll, 1998).

Moreover, in the cooperative setting students present a higher sense of community and awareness of their own behaviors, so they try hard to complete their tasks and achieve group success. Especially during discussion, students negotiating with group members while confronting differing opinions also facilitated the development of their social skills (Ewald, 2004). Under these circumstances, students’ attitudes, effort, and desire to learn a language are likely to improve; therefore, I strongly recommend cooperative learning instruction to support EFL teaching in
vocational high schools in Taiwan.

*Issues for Teachers of Large Classes*

Another problem I encountered in this study is that higher classroom enrollment affects the teaching quality and student learning in EFL classrooms. In this study, 47 students were enrolled in my elective English Conversation I class, far more than the recommended 20 (Finn & Pannozzo, 2003). Finn and Pannozzo stated that reduced class size yields positive effects on students’ engagement in the classroom and improves academic performance. Moreover, teachers can also provide more individualized instruction and pay more attention to teaching and less to classroom management or discipline. Language should be taught and learned through interactional dialogue (H. D. Brown, 2000); therefore, school administrators must consider reducing class size to facilitate the effective acquisition of a new language in EFL classrooms.

The issue of large numbers of students in EFL classes may not be remedied immediately because of the limited number of language teachers and teacher scheduling problems (S.-C. Lu, 2003). The cooperative learning approach, based on student-centered instruction, divides students into small groups, which teachers can help and monitor in order to increase effective behavior and performance (Boilin & Rabow, 1981). In addition, numerous studies have been conducted on cooperative learning instruction as an effective teaching method in foreign language classrooms (Allen, 2006; Ghaith & Shaaban, 2005; Shaaban, 2006; Tan et al., 2007); it works especially well in large conversational classes (Yeh, 2004). The participants in this study also reported that they were interested in and happy with learning English in the cooperative setting. Language teachers should, therefore, consider the cooperative
learning approach as an ideal option to use when large numbers of students are enrolled in their EFL classrooms.

**Necessary Teaching Tools in Cooperative Learning Instruction**

During the process of converting to the student-centered environment, both teacher and students may experience difficulty adjusting to the cooperative setting. Johnson and Johnson (1994) claimed that students need explicit directions on what skills they need to cooperate and communicate well with group mates to complete group tasks. If teachers merely put students into groups and expect them to work well without training in the cooperative process (Slavin, 1995), the benefits of cooperative learning are lost.

Moreover, in order for students to be immersed (Cambourne, 1988), the language teacher must design a carefully structured curriculum in a variety of target language contexts, including stimulating and challenging learning activities (Kohn, 1991) and interesting teaching materials to develop students’ motivation to learn. For instance, computer technology, interesting teaching materials, and multiple levels of learning activities should be incorporated into EFL classrooms. As a result, students are motivated to engage in and work on their tasks. This finding implies that the language teachers should practice cooperative learning instruction with clear guidance, interesting learning tasks, and careful planning and preparation. If they do, cooperative learning can be effective in vocational high school EFL classrooms.

**Incorporating Student Interests into the Curriculum**

I found that the participants in this study became more eager to learn in the cooperative setting. Students present negative attitudes toward learning, especially when the learning task is difficult, and they give up, perhaps because their poor
English performance and previous failed language learning experiences diminished their aspirations to learn English. This type of student typically presents lower scores on the pretest of their Motivation Strategies Learning Questionnaire (MSLQ) on their belief in their own ability to learn. In fact, students’ frustration and failed learning experiences exert considerable influence on their motivation to learn English and their confidence (Yeh, 2004). How can the teacher help improve students’ confidence and motivation to learn English?

According to the research findings, interesting teacher-designed in-class learning activities make the English classroom more fun. Some techniques and approaches are especially recommended, such as involving computer technology, incorporating students’ interests and favorite after-school activities, introducing related language learning strategies, and developing appropriate language curricula based on students’ abilities. All students should be encouraged to challenge themselves in various language learning activities and receive positive feedback from caring teachers. These findings imply that students present higher motivation and positive interaction when they study in an emotionally safe and supportive learning environment with their peers and teacher in the EFL context.

*Cultural Values Awareness*

In this study, research results reveal that cultural factors may affect students’ working effectively in teacher-selected heterogeneous groups in cooperative settings. Most students feel uncomfortable when assigned to work with unfamiliar classmates; however, most perceive more harmonious relationships with group mates and more peer support in interest groups. Windschitl (2002) claimed that constructivist teachers are obliged to understand their own classroom culture, students’ thinking, and
learning contexts when incorporating cooperative learning into their EFL classrooms. In addition, student differences, such as English performance levels, gender, age, and academic major, should be considered when dividing students into small groups for success in the practice of cooperative learning.

**Implementation of Computer Technology and Student Motivation**

The use of computer technology is effective in motivating students to learn English in the EFL context. They feel less stress developing reading recognition with the online dictionary. They also gain latest knowledge by watching online video on YouTube, increasing their awareness of contemporary issues. Incorporating computer technology into EFL classes is highly recommended to allow students to demonstrate their abilities in learning English in the cooperative setting; however, this study found that students also present positive attitudes toward learning and motivation when working with advanced computer technology. Poorly functioning computers can frustrate both students and teacher; therefore, it is essential for language teachers to have sufficient computer-related knowledge and training in their teacher preparation programs so they are able to solve some basic computer problems that routinely occur in classrooms.

**Cooperative Learning Instruction in Teacher Preparation Programs**

Finally, teacher educators should introduce cooperative learning techniques to preservice and in-service teachers. Teachers must be trained to design activities appropriate for cooperative learning, structure curricula carefully, and understand the procedures necessary to succeed in implementing cooperative learning in their EFL classrooms.
Recommendations for Future Research

In terms of the limitations of the study, I have made the following suggestions.

Sample Size Considerations

The target population for this study was 47 vocational high school students in Keelung in northern Taiwan. Because of the sample size (n=47), the results of the study cannot be generalized to other settings; however, the study fills a gap in the research by raising language teachers’ awareness of infusing cooperative learning instruction into EFL classrooms. Future research on similar research topics may need to include larger research samples and more locations because cooperative learning instruction is worthy of continued examination and application.

Extending the Time Frame of the Research

This action research was conducted during the course of one semester for a total of 15 weeks. Low student attendance rate was a critical problem in this study. Grade 12 students especially have difficulty focusing on their tasks because of repeated tardiness or absence from class. In addition, the repeated-measures analysis of variance in the study also shows that 12th-grade students exhibit less improvement compared to 10th- and 11th-grade students in motivation to learn a language in a cooperative setting. The probable reason that cooperative learning instruction does not work well for 12th-grade students is that they are preoccupied with graduation plans and pay less attention to schoolwork. In-depth exploration of the kind of language curriculum appropriate for 12th-grade students so they learn for their future career and life in college is highly recommended. Other factors may also affect 12th-grade students’ motivation to learn English and the outcomes; therefore, the researcher suggests that future researchers extend the time frame of the research to the long term,
perhaps a full school year, to explore more findings and the effects of cooperative learning instruction on students’ EFL performance.

The Correlation between Motivation to Learn and Performance

The results of this study show that students present positive motivation to learn in cooperative settings. C.-L. Wang (2005) identified a positive correlation between motivation to learn and achievement; however, the current study did not delve into students’ language learning performance, so future researchers with similar research topics may want to examine the relationship between cooperative learning and vocational high school students’ academic performance in EFL contexts.

The Effects of Teacher Characteristics

This study investigated a group of vocational high school students’ motivation to learn English in cooperative learning settings. In fact, for both students and teacher, a lengthy period of adjustment was necessary because this study represents the first time they experienced cooperative learning instruction in the EFL context; therefore, future researchers may be interested to find out whether the teacher is one of the factors in the success of cooperative learning.

Chapter Summary

This study sought to explore the effects of cooperative learning instruction on the motivation of low-achieving language learners in the EFL classroom. By using self-reflective action research, I inquired into the reasons for negative reactions to what happened in my classroom. I also learned about students’ progress because I taught lessons in a new way and saw classroom activity from the students’ points of view. Finally, I concluded that the ideal EFL classroom for low-achieving language learners in Taiwan is one in which the teacher (a) practices constructivist pedagogy, (b)
builds a caring EFL classroom, and (c) implements reflection and action research in the EFL context.
APPENDICES
APPENDIX A

STUDENT BACKGROUND SURVEY ON ENGLISH SUBJECT
Student Background Survey on English Subject

Date: _____  Name: ______________   grader: ______________

Please consider each statement and provide appropriate answers.

1. Please write down your English score on your Join Entrance Examination for Junior High School:
   My English score was _____,
   My Mathematics score was _____,
   My Chinese was _____.

2. How many people are there in your family at the home where you live?
   ___ father, ___ mother, ___ sisters, ___ brothers,
   ___ others (who are they?)_________________________________________
   a. What are your parents’ occupations?

   ____________________________________________
   b. Do any of your family members speak or write English? ___ Yes. ___ No.
   If your answer is “yes,” please explain who they are___________________.
   Does anyone speak English at home? ___Yes. ___No.

3. What is your favorite subject in school? ______________________________
   Which is your least favorite? _______________________________________

4. Have you ever visited an English speaking country? ____ Yes. ____ No.
   If your answer is “yes,” please write down how long do you stayed there.
   ________ year(s)
   ________ month(s)
   ________ day(s)
   ________ hour(s)
   Please tell which country or countries you visited and for what purposes.

   ________________________________________________________________
5. Do you engage in any additional English learning activities outside the class everyday or every week, such as
   ___Yes   ___No   listening to English music/radio,
   ___Yes   ___No   watching English movies/news/TV,
   How many hours do you spend on them?
   ____________________________________________________________________

7. Do you attend any language learning program (such as a cram school) for improving your English after regular school? _____Yes   ____No

8. What do you think about learning English?
   ___Very important   ___Important   ___Moderate   ___Unimportant

9. What do you think is the purpose of learning English?
   ____________________________________________________________________
   ____________________________________________________________________

10. How was your English learning experience before this class?
    ___Terrible    Please give examples: ____________________________
    ___Pleasant    Please give examples: ____________________________
    ___No feeling  Please tell why: ________________________________
學生英文背景問卷

日期: ______ 姓名: __________ 班級: ______________

請仔細思考以下的問題並提供適當的答案:

1. 請寫下你參加 2006 高中學科能力測驗成績。
   我的英文科分數是 ________。
   我的數學科分數是 ________。
   我的國文科分數是 ________。

2. 家中成員有幾人_________
   _____爸爸; _____媽媽; _____姐姐; _____妹妹;
   _____哥哥; _____弟弟; _____其他(他們是________________)。
   a. 你父母親的職業是__________________________
   b. 家中成員是否有人會說或寫英文? ______是，______否
      如果你的答案為“是”請解釋他們是__________________________

3. 你是否曾經到過說英文語言的國家? ______是，______否
   如果你的答案為“是”，請寫下你待在那個國家多久?
   ________ 年(s)
   ________ 月(s)
   ________ 日(s)
   ________ 小時(s)
   請說明為何目的而去? 是那個國家?
   ____________________________________________________________

4. 在學校的課程中你最喜歡的是哪一科目? _______________________
   請說明喜歡的原因是?
   ____________________________________________________________
學生英文背景問卷

5. 你是否有任何嗜好或習慣在課後從事一些任何有關英文的活動?（譬如聽英文歌，看英文影集，讀英文小說…等）

__________ 是 ____________ 否

如果你的答案為“是”，請繼續以下的題目

a. 請說明什麼活動?

_______________________________________________________________

b. 你通常花多少時間從事此活動?

_______________________________________________________________

c. 請說明為何目的而從事此活動?

_______________________________________________________________

6. 你在課後是否另有到補習班補習英文? ________ 是， ________ 否

7. 你認為學習英文重不重要?

___ 非常重要， ___ 重要， ___ 普通， ___ 不重要

8. 你認為學習英文的目的是?

_______________________________________________________________

_______________________________________________________________

9. 你過去學習英文的經驗是?

___ 痛苦 請舉出實例: ________________________________

___ �太高 請舉出實例: ________________________________

___ 沒感覺 請說明理由: ________________________________
APPENDIX B

STUDENT MOTIVATION QUESTIONNAIRE ON THE SUBJECT OF ENGLISH
**Student Motivation Questionnaire on the Subject of English**

Student name: ____________________    Age: ________
Gender (circle one):  M  /  F
Directions: Consider the following statements. Mark your response with a ✓ in the appropriate box.

<table>
<thead>
<tr>
<th></th>
<th>Strongly Agree</th>
<th>Agree</th>
<th>Undecided</th>
<th>Disagree</th>
<th>Strongly disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>In an English class, I prefer course material that really challenges me so I can learn new things.</td>
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<td>2.</td>
<td>If I study in appropriate ways, then I will be able to learn the material in English course.</td>
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<td>3.</td>
<td>When I take an English test, I think about how poorly I am doing compared with other students.</td>
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<td>4.</td>
<td>I think I will be able to use what I learn in this course in other courses.</td>
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<td>5.</td>
<td>I believe I will receive an excellent grade in this English class.</td>
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<td>6.</td>
<td>I am certain I can understand the most difficult material presented in the readings for this English course.</td>
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<tr>
<td>7.</td>
<td>Getting a good grade in this English class is the most satisfying thing for me right now.</td>
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<td>8.</td>
<td>When I take an English test, I think about items on other parts of the test I cannot answer.</td>
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<td>9.</td>
<td>It is my own fault if I don’t learn the material in English class.</td>
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<td>10.</td>
<td>It is important for me to learn the course material in an English class.</td>
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<td>11. The most important thing for me right now is improving my overall grade point average, so my main concern in this English class is getting a good grade.</td>
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<td>12. I am confident I can learn the basic concepts taught in this English class.</td>
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<td>13. If I can, I want to get better grades in this class than most of the other students.</td>
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<td>14. When I take tests, I think of the consequences of failing.</td>
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<td>15. I am confident I can understand the most complex material presented by the instructor in this English course.</td>
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<td>16. In an English class, I prefer course material that arouses my curiosity even if it is difficult to learn.</td>
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<td>17. I am very interested in the content area of this course.</td>
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<td>18. If I try hard enough, then I will understand the course material.</td>
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<td>19. I have an uneasy, upset feeling when I take an exam.</td>
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<td>20. I am confident I can do an excellent job on the assignments and tests in this English course.</td>
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<td>21. I expect to do well in this class.</td>
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<td>22. The most satisfying thing for me in this course is trying to understand the content as thoroughly as possible.</td>
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<td>23. I think the course material in this class is useful for me to learn.</td>
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<td></td>
<td>Strongly Agree</td>
<td>Agree</td>
<td>undecided</td>
<td>Disagree</td>
<td>Strongly disagree</td>
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<td>24.</td>
<td>When I have the opportunity in this class, I choose assignments that I can learn from even if they don’t guarantee a good grade.</td>
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<td>25.</td>
<td>If I don’t understand the course material, it is because I did not try hard enough.</td>
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<td>26.</td>
<td>I like the subject matter of this course.</td>
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<tr>
<td>27.</td>
<td>Understanding the subject matter of this course is very important to me.</td>
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<tr>
<td>28.</td>
<td>I feel my heart beating fast when I take an English exam.</td>
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<td>29.</td>
<td>I am certain I can master the skills being taught in this class.</td>
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<td>30.</td>
<td>I want to do well in this English class because it is important to show my ability to my family, friends, or others.</td>
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<tr>
<td>31.</td>
<td>Considering the difficulty of this course, the teacher, and my skills, I think I will do well in this English class.</td>
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<tr>
<td>32.</td>
<td>I am doing well in learning English vocabulary.</td>
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<td>33.</td>
<td>I am confident creating English sentences.</td>
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<td>34.</td>
<td>I believe I can read an English article and understand the content of this article.</td>
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<td>35.</td>
<td>I feel comfortable to read aloud new vocabularies or a short paragraph in English.</td>
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</table>
36. I feel comfortable in including English into my daily life. (For instance, I start surfing the internet in English version instead of Chinese, or I write e-mail/notes in English etc.)

37. I enjoy listening to the radio in English.

學生動機問卷

姓名：_________________ 班級：_________________
年紀：__________
性別（圈其一）：男生 / 女生
指示：思考以下的答案最能代表你的個性，並在適當的空白內打勾“ˇ”。

<table>
<thead>
<tr>
<th>非常同意</th>
<th>同意</th>
<th>沒意見</th>
<th>不同意</th>
<th>非常不同意</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. 在英文課，我比較喜歡難一點有挑戰性的課文、習作…等，因爲這樣我可以學到新的東西。</td>
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<tr>
<td>2. 如果我用對學英文的方法，我就可以學好英文。</td>
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<td>3. 在考英文時我常覺得自己的英文程度比其他同學還差。</td>
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<td>4. 我可以把英文課中所學到的東西運用到其他科目中。</td>
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<td>5. 我相信我在英文科的成績表現上很好。</td>
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<tr>
<td>6. 我有把握理解英文課本中課文閱讀部分的課文大意。</td>
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<tr>
<td>7. 能在英語課堂中拿到好的成績是我最得意的事。</td>
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<td>8. 在考試時，我會一邊寫答案，一邊想着那些我不會寫的英文題目。</td>
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<td>9. 如果我仍不會老師所教過的英文內容，我會認為這一切都是我自己的錯，而不是其他的因素。</td>
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<tr>
<td>10. 學英語，對我來說是很重要的事。</td>
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<tr>
<td>11. 目前對我來說英文成績好是最重要的，所以我最關心的是英文老師會不會給我好的成績分數。</td>
<td></td>
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<tr>
<td>12. 我有信心可以學好英文課的內容。</td>
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<tr>
<td>13. 如果可以的話我希望我的英文成績能夠贏過班上許多人。</td>
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<td>14. 在考英文時，我會想到如果最後我失敗的後果。</td>
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<td>15. 我有把握能理解英文老師所教的課程內容中最難的部分。</td>
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<tr>
<td>16. 在上英語課時，有時雖然課程內容很難，但只要能引起我的好奇心我一樣會喜歡英文。</td>
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</tbody>
</table>
17. 我對英文課所教的內容很感興趣。

18. 如果我夠用功，那麼我就會了解英文課所學的內容。

19. 在考英文時，我會感到不自在，全身不舒服。

20. 我有信心能把英文作業做好，把考試考好。

21. 我期待自己能在英文課裡獲得好的成績表現。

22. 在英語課堂中，最令我滿意的事就是我會盡力將老師所教授的內容全部弄懂。

23. 我認爲學英文，對我是有用處的。

24. 在上英語課時，如果我可以選擇作業，我會選擇可以學到東西的作業，雖然這樣的選擇並不能保證可以获得好的成績。

25. 如果我不了解英語課的教師所教的上課內容，那都是因為我不夠用功、不夠盡力。

26. 我喜歡英文。

27. 能夠了解英文課程所教授的內容是很重要的。

28. 在考英文的時候，我覺得我的心跳得很快。

29. 我自信自己有能力在英文的聽、說、讀、寫上更加提升與精進。

30. 我決心要在英文課上獲得好的成績表現，主要是因為我能很高興的向我的家人、朋友、或其他人顯示我優秀的能力。

31. 每當想到“英文”這一困難的科目，我的英文老師和我自己的能力時，最後我仍對我自己有自信且我會學得很好。

32. 在學習英文單字方面，我自認表現還不錯。

33. 我能自己造出一個完整的英文句子。

34. 我能大聲朗讀一篇英文文章並能了解其文章的內容大意。

35. 看到新的英文單字或英文短句時，我能大聲而正
確的唸出來。

<table>
<thead>
<tr>
<th>36. 我會將英文融入生活中來學習，例如我會上英文網站而非中文網站；或者我會嘗試發英文 e-mail 或用英文來做筆記。</th>
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<tr>
<td>37. 我喜歡聽英文廣播節目。</td>
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</table>

Student interview

Student Name: __________________      Grader: ____________
Date: __________   Time: __________   Location: ___________
Direction: Please consider each statement and provide appropriate feedback.

1. Which topic have you learned in our English conversation class that you have found the most satisfying?

2. In what activities you did in this English conversation class really arouse your curiosity?

3. Cooperative learning together
   a. How do you think the cooperative group work helped you learn English?
   b. Have you learned anything from your group members while the four of you worked on a task? (Give one specific example of something you learned from the group that you probably wouldn't have learned on your own.)
   c. Do you think your group is effective working together?
   d. How do you see the relationship between you and your classmates (peer-group work)?
   e. How do you see the relationship between you and your teacher?
   f. Are you satisfied with what you have done in your group so far?

4. What do you think will be the reaction of your parents when they know you are attending an English classroom which is different than a traditional Chinese learning environment?
學生訪談

學生姓名: _________________     日期: __________
時間: __________     地點: __________
指示: 請仔細思考以下的問題，並予適當的回應。

1. 在上英語會話課時哪一個單元(主題)曾引起你的興趣會想要更進一步的探就學習? 為什麼?

2. 在上英語會話課時哪一學習活動引起你的興趣會想要熱情的參與學習?

3. 合作學習
   a. 談談“合作學習”這方式的學習活動對你英文科的學習興趣是否有所幫助或是改變?
   b. 談談你與你組員間透過“合作學習”完成一項任務的過程中是否有所成長?
   c. 談談組員間合作的過程是否有任何不愉快或滿意的學習過程?
   d. 談談你自己與同學(組員)之間的關係?
   e. 談談你自己與老師之間的關係?
   f. 談談你自己在組員間透過合作學習與討論的過程中是否表現滿意或需加強的地方?

4. 談談你父母如果了解到你現在的英語會話課，不論是在教學上或是學生學習方面皆與傳統的教學不一樣時他們的反應為何?
APPENDIX D
CLASS OBSERVATION STUDENT INTERACTION IN SMALL GROUPS
(TEACHER USE ONLY)
Classroom Observation
Student Interaction in Small Groups
(Teacher use)

Setting: Small-group work
Purpose: To determine whether individual students are positively involved and participating in learning during small-group work
Prescription: Observe individual students in the group and check what they are doing at that moment.

Student name: _______________ Observing Time: __15 minutes__ Observing Date: __
Observing Location: __EFL Classroom__ Recorder: _______________

Directions: According to your observation, mark your response with a √ in the appropriate box.

<table>
<thead>
<tr>
<th>Item</th>
<th>Students</th>
<th>S1</th>
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<tbody>
<tr>
<td>Individual students show enthusiasm about</td>
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<td>1. Listening to group member</td>
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<td>2. Presenting ideas to group</td>
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<td>3. Task-talking to individual</td>
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<td>4. Reading handout delivered by EFL teacher or searching for useful information from other tools (e.g., dictionary, magazines, newspapers)</td>
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<td>5. Asking for help from teacher</td>
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<td>6. Asking for help from other group members</td>
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<td>7. Being in charge of their jobs.</td>
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<td>Summing up, individual student shows positive learning attitudes in</td>
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<td>small-group discussion activity.</td>
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<td>8. Off-task talking to other group members (i.e., chatting in classroom)</td>
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<td>9. Off-task talking to individual (i.e., chatting in classroom)</td>
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<tr>
<td>10. Off-task work (e.g., work on assignment for another class or sleep in the classroom)</td>
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<td>11. Silence or confusion</td>
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<tr>
<td>Summing up, individual student shows negative learning attitudes in small-group discussion activity.</td>
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<td>Individual student behaviors</td>
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<td>12. The seat of individual student is close to group members</td>
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<td>13. The seat of individual student is far away from group members; withdrawal from group (e.g., leave group)</td>
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<tr>
<td>Summing up, individual student is absent from small-group discussion activity.</td>
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Classroom Observation  
Student Interaction in Small Groups  
(Teacher use)

| Setting: Small-group work                               | Observing Time: ___15 minutes___ |
| Purpose: To determine whether individual students are positively involved and participating in learning during small-group work |                                      |
| Prescription: Observe individual students in the group and check what they are doing at that moment. |                                      |

| Student name: _______________ | Observing Date: ___________ | Observing Location: ___EFL Classroom___ |
| Recorder: ________________ |                                     |                                        |

In the space below provide feedback in the form of your observations of student interaction or behavior in the small-group activity.
教室觀察
小組互動觀察表
（教師用）

上課形式: 小組討論
目的: 是否小組中每位成員是積極參與學習活動．
規定: 觀察小組中成員的學習行爲在 15 分鐘的討論活動

學生姓名: ____________　觀察時間: __15 分鐘__

觀察時間: ____________　觀察地點: ______教室____

紀錄者: ____________

<table>
<thead>
<tr>
<th>學生態度顯著積極於...</th>
<th>S1</th>
<th>S2</th>
<th>S3</th>
<th>S4</th>
<th>S5</th>
<th>S6</th>
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<th>S9</th>
<th>S10</th>
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<tbody>
<tr>
<td>1. 順聽其他成員的談話</td>
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<td>2. 發表自己的意見想法對其他成員</td>
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<td>3. 認真的參與討論</td>
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<td>4. 讀教師發的講義或透過其他工具查尋有效資訊(例,字典, 雜誌, 報紙...)</td>
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<tr>
<td>5. 記下成員們的談話內容或答案</td>
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<tr>
<td>6. 尋求教師的協助 (若有疑問時)</td>
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<td>7. 尋求其他組別成員的協助 (若有疑問時)</td>
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<td>8. 學生有分擔小組成員間的工作</td>
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學生學習態度顯得非常積極

學生態度顯出...

9. 與別組組員在聊天 |    |    |    |    |    |    |    |    |    |      |      |     |
<p>| 10. 與自己組員在聊天 |    |    |    |    |    |    |    |    |    |      |      |     |
| 11. 做其他事 (例,寫其他作業或別科的作業或睡覺) |    |    |    |    |    |    |    |    |    |      |      |     |
| 12. 沉默或困惑 |    |    |    |    |    |    |    |    |    |      |      |     |</p>
<table>
<thead>
<tr>
<th>Item</th>
<th>Students</th>
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<tbody>
<tr>
<td>學生學習態度顯得非常不積極</td>
<td>S1  S2  S3  S4  S5  S6  S7  S8  S9  S10  S11  S12</td>
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<tr>
<td>學生行為...</td>
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<tr>
<td>13. 與組員間討論的座位距離安排很靠近</td>
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<tr>
<td>14. 與組員間討論的座位距離安排很遠甚至離開自己的組別</td>
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<tr>
<td>學生並未參加小組討論</td>
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</tbody>
</table>
教室觀察
小組互動觀察表
(教師用)

<table>
<thead>
<tr>
<th>形式：</th>
<th>小組討論</th>
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<tbody>
<tr>
<td>目的：</td>
<td>是否小組中每位成員是積極參與學習活動。</td>
</tr>
<tr>
<td>規定：</td>
<td>觀察小組中成員的學習行爲在15分鐘的討論活動</td>
</tr>
</tbody>
</table>

學生姓名: ___________  觀察時間:  ___________  15 分鐘
觀察時間: ___________  觀察地點: _______教室_______
紀錄者: ___________

此表可提供您在觀察小組成員中學生的互動行爲當中 如果有任的意見,回應,或其他書寫紀錄可以利用以下空白處填寫.
APPENDIX E
TEAM INTERACTION FEEDBACK EVALUATION FORM
(STUDENTS USE ONLY)
# Team Interaction Feedback Evaluation Form

(Students use)

## Setting: Small-group work

## Purpose: To determine whether individual students are positively involved and participating in learning during small-group work

## Prescription: Observe individual students in the group and check what they are doing at that moment.

Recorder: _____________  
Observing Time:   ___15 minutes___

Observing Date: _____________  
Observing Location: _EFL Classroom_

<table>
<thead>
<tr>
<th>Position Title</th>
<th>Task</th>
<th>Name</th>
<th>Ranking Scale</th>
</tr>
</thead>
</table>
| Team Leader    | 1. Takes charge of the group discussion procedure, including the order of speakers.  
2. Helps teacher deliver handouts or worksheets to group members.  
3. Monitors group members’ behaviors (Do they respect one another?) |      | ___ very good  
___ average  
___ needs improvement |
| Recorder       | Keeps a record of the discussion contents.                          |      | ___ very good  
___ average  
___ needs improvement |
| Assistant      | Makes sure group members understand the learning contents.          |      | ___ very good  
___ average  
___ needs improvement |
| Speaker | Reports the group discussion results in the classroom | ___ very good  
|_________|______________________________|___ average  
|        |______________________________|___ needs improvement  

In a group discussion, I found __________ is the most capable group member because . . .

In a group discussion, I found myself . . .
小組互動觀察表

（學生用）

形式：小組討論
目的：是否小組中每位成員是積極參與學習活動。
規定：觀察小組中成員的學習行為在 15 分鐘的討論活動

<table>
<thead>
<tr>
<th>職位</th>
<th>任務</th>
<th>姓名</th>
<th>順序</th>
<th>順序</th>
<th>順序</th>
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<tbody>
<tr>
<td>組長</td>
<td>1. 負責討論時組員發言時的順序 2. 協助教師分發學習單 3. 維持秩序</td>
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<tr>
<td>紀錄者</td>
<td>紀錄每次討論結果</td>
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<tr>
<td>輔導長</td>
<td>輔導組員們都能了解學習的內容</td>
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<tr>
<td>發言者</td>
<td>報告討論結果</td>
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在這次的討論活動中，我發現 ____________ 是最棒，有盡自己所能的與組員合作
因爲：

在這次的討論活動中，我覺得我自己的表現 ____________
因爲：....
APPENDIX F

THE SAMPLE LESSON PLAN
The Sample Lesson Plan

<table>
<thead>
<tr>
<th>Topic: Environmental Awareness</th>
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<tbody>
<tr>
<td>Instructional Objectives:</td>
</tr>
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</table>

- Students will be able to
  1. pronounce the target vocabularies related to the content-relevant topic
  2. form new sentences by using grammar structures, such as “It is necessary/important for us to . . .” (“It is important for us to make efforts to preserve endangered animals, such as giant pandas.”); “To tell you the truth . . .” (“To tell you the truth, hunting animals for their fur to be fashionable is wrong and should be banned.”)
  3. construct their ideas and define their statements in English both individually and as a group.
  4. construct an English composition on the value of nature’s powerful resources, paying particular attention to environmental issues (a) after viewing the trailer for the documentary *An Inconvenient Truth*, (b) by discussing the devastation of Hurricane Katrina and the typhoon that struck Indonesia, and (c) by reflecting on the consequences of failing to act, including the extinction of endangered species like the giant panda.
The Sample Lesson Plan (continued)

<table>
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<tr>
<th>Topic: Environmental Awareness</th>
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<tbody>
<tr>
<td><strong>Instructional Objectives:</strong></td>
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<tr>
<td>5. convey their ideas in front of the class in English on the issue of endangered species and decide their responsibility to wildlife and environmental conservation as well. For instance, they might want to adopt a panda online or put daily recycling into practice.</td>
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<tr>
<td>6. work cooperatively in small groups to research the topic by exploring information from English websites about the endangered species, the giant panda.</td>
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<tr>
<td>7. after a lesson on debate, present a class debate in English on the following topic: “Is it a good idea to have a giant panda exhibit at the Taiwan Zoo?”</td>
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<table>
<thead>
<tr>
<th>Theoretical Rationale</th>
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<tbody>
<tr>
<td>I. In accordance with constructivist learning and teaching theory, an emphasis on interactive and cooperative learning will be integrated into the EFL classroom. To make learning successful, five goals for developing cooperative learning among group members will be presented (Johnson, Johnson, &amp; Holubec, 1994).</td>
</tr>
<tr>
<td>A. To cultivate positive interdependence, roles will be assigned to team members, who will set a common goal for the groups to reach. Group members will share information and receive rewards through cooperative teamwork (Johnson, et al., 1994).</td>
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<tr>
<td>B. Engaging in face-to-face interactive discussion will</td>
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provide students with additional opportunities to communicate, negotiate, and draw final conclusions (Johnson, et al., 1994).

C. The fostering of social skills (tolerance, respect, and helpfulness) will help the groups run smoothly and maintain good working relationships among peers (Johnson, et al., 1994).

D. Group members will cultivate individual accountability and actively contribute to the group. The teacher will distribute a Teamwork Interaction Peer Feedback Form so that students can reflect on their own performance as well as that of other group members (Johnson, et al., 1994).

E. Students need increased opportunities to reflect on their work; therefore, during group work, group members should do their best to contribute their knowable knowledge or efforts to the task. Group members should adjust their roles appropriately so that a positive learning environment and academic achievement can be promoted and behavioral problems can be avoided or reduced. At the end of the class, group members will be asked to fill out the Team Interaction Feedback Form, on which they will evaluate their own work as well as that of other group members (Johnson, et al., 1994).
II. The Group Investigation (GI) approach (Sharan & Sharan, 1992) will be infused into the cooperative learning process throughout the entire study. In order to run the EFL classroom smoothly,

A. The teacher will divide students into groups and assign roles to group members, such as leader, reporter, recorder, or material manager, etc. Group members who take responsibility for their jobs could prevent free-loaders from spoiling the learning climate.

B. The teacher will present challenging or multi-faceted questions to the students for inquiry. For example, questions related to the giant panda will include the following: (a) “What will happen if we import endangered giant pandas into Taiwan?” and (b) “What do you think of the way China shares pandas with zoos worldwide?” The purpose of posing inquiry questions is to arouse student motivation and interest. Once students clarify a question posed by the teacher, they will engage in an interactive discussion to answer the question or solve the problem.

C. As the students work on their inquiry, they will collaborate to share their experiences or ideas, even using computers for surfing for new information and completing their tasks.

D. Students will reach the goal of the GI approach, that is, to
III. According to constructivist theory on learning and teaching, curriculum development should primarily emphasize students’ points of view and provide the opportunity for them to engage in the active construction of their own knowledge. The teacher acts as the key medium by using open-ended dialogue and discourse to stimulate learning and develop students’ high-level thinking. Incorporating Bloom’s taxonomy and the classification of objectives and test questions into the lesson could help the teacher conduct useful and interactive learning and teaching (Bloom, 1956).

A. The question cues corresponding to the various levels of knowledge include the following: describe, list, define, tell, identify, show, label, collect, examine, tabulate, quote, name, who, when, where, etc. (Bloom, 1956). Examples of key questions to be posed to students include the following: (a) “What do giant pandas eat? Can you find a word in English?” and (b) “Can you describe some features of giant pandas in English?” Students will be able to state in English, for example, that giant pandas have black and white fur, live in the mountains of central China, and belong to one of the world’s endangered species.

B. The question cues corresponding to the various levels of
comprehension include the following: explain, summarize, describe, interpret, contrast, predict, associate, distinguish, estimate, differentiate, discuss, and extend (Bloom, 1956). Examples of key questions to be posed to students include the following: “Explain what you think we can do to preserve giant pandas?” Students will be able to explain their ideas in their own words in English, for example, “We can reserve the forest for the protection of giant pandas.”

C. The question cues corresponding to the various levels of application include the following: construct, apply, demonstrate, calculate, complete, illustrate, show, solve, examine, modify, relate, change, classify, experiment, and discover (Bloom, 1956). An example of a key question to be posed to students follows: “Evaluate Taiwan as a habitat for giant pandas.” Students will be able to illustrate their ideas in English about reducing the threats to the giant panda and describe the benefits of having giant pandas in Taiwan.

D. The question cues corresponding to the various level of analysis include the following: analyze, separate, order, explain, connect, classify, arrange, divide, compare, select, explain, and infer (Bloom, 1956). An example of a key question to be posed to students follows: “Compare the advantages and disadvantages of keeping endangered giant
pandas in their natural habitats vs. at zoo?” Students will present their views in English.

E. The question cues corresponding to the various levels of synthesis include the following: combine, integrate, modify, rearrange, substitute, plan, create, design, invent, what if, compose, formulate, prepare, generalize, and rewrite (Bloom, 1956). Examples of key questions to be posed to students include the following: “What are the consequences if pandas disappear?” “How does animal extinction resemble other environmental issues?” Students will present their views in English.

F. The question cues corresponding to the various levels of evaluation include the following: assess, decide, rank, grade, test, measure, recommend, convince, select, judge, explain, discriminate, support, conclude, compare, and summarize (Bloom, 1956). An example of a key question to be posed to students follows: “Use the strongest reasons to support your statements (example, common sense, experts’ opinion, and statistics) when rebutting your opponents’ views in your debate.” Students will present their views in English.

IV. Motivation is a major factor in the successful acquisition of foreign-language skills (Oxford & Shearin, 1994). Furthermore, the primary purpose of this study is to motivate students to
develop interest in learning English in an EFL classroom in Taiwan. Ames and Archer (1988) studied 176 junior and high school students in terms of developing intrinsic motivation by emphasizing mastery-oriented goals, using effective strategies, and preferring challenging tasks. This researcher will consider these issues by designing appropriate learning activities for the EFL classroom in this study.

A. Mastery-oriented goals emphasize the process of learning, making progress or improvement, continuity, learning something new, and a belief that success is related to one’s effort (Ames & Archer, 1988). Motivation-oriented goals entail encouraging students to become experts on the giant panda by holding a class debate presented as a TV show at the end of the class, doing their best to present their ideas in their own words in English. The teacher will explain to students that all team members must accept their responsibilities by continually inquiring, exploring, discussing, negotiating the advantages and disadvantages of having giant pandas displayed at zoos in Taiwan, and finally engaging in a class debate presented as a TV show. Group members may submit their debates to *Keelung Youth*, an annual publication, to share their efforts.

B. Effective strategies will focus on long-term involvement and interest in learning. Learners will select their preferred
projects and strategies when they work on a task. The
teacher will encourage students to engage in a project that
may at first seem complicated or confusing to them,
assuring them that they will do very well and learn a lot
from it if they make the effort (Ames & Archer, 1988). In
the motivation-oriented approach the teacher will
incorporate giant pandas as authentic images of animals as
a topic for a challenging task—a class debate in English to
stimulate student interest in this lesson.

C. Challenging tasks necessitate emphasizing that effort will
bring success (Ames & Archer, 1988). When students
engage in challenging tasks, they should not focus on
academic performance goals, for instance how they
perform and how much better they have to do to
outperform others. In our EFL classroom, we will focus on
cooperative teamwork to which group members will
contribute their efforts to use English in their learning.
Each group member’s efforts will benefit not only the
individual but also all the other group members. The
motivation-oriented approach will entail telling the
students that they are going to have a class debate.
Although the process of debate may seem intimidating to
students who have never debated before, the teacher will
present a lesson on the nature of debate that will help them
understand the techniques involved. By doing so both teacher and students can learn.

V. The setting for this study is a Taiwan EFL classroom. Thus, the incorporation of EFL teaching pedagogy into the lesson will motivate the teacher to build a better curriculum from which the students can learn and the teacher can teach. Vocabulary is an important part of language learning because it promotes dialogue on different topics with people and the acquisition of new information by reading. Schmitt (2000) illustrated three approaches to acquiring new words: explicit teaching, incidental learning, and repeated exposure to target words in varied contexts.

A. Explicit vocabulary teaching focuses on deeper learning processes by engaging mental images to think about and study target words. In reality, the teacher cannot introduce all target words to students in the classroom. Using the EFL infusion approach, the teacher may say, “Can we find a word (L1) with phonological similarity to giant panda in English?” This keyword method combines elements of phonological form and meaning in a mental image (Van Gelderne, Schoonen, Stoel, de Glopper, & Hulstijn, 2007).

B. Thus, learners might meet other infrequently used words later in incidental contexts. Incidental learning focuses on using language for communication (Schmitt, 2000). The
incidental learning approach include activities such as writing a word on a paper in order to master its orthographic form, reading a word’s pronunciation aloud to enhance remembering the phonology (Ellis & Sindair, 1996), or guessing a new word’s meaning from the reading context (Schmitt, 2000.) When both explicit teaching and incidental learning are included in language learning, the student will benefit with the acquisition of new vocabulary. The teacher can use the infusion approach to EFL and say, “Can you guess the meaning of the English word endangered in the following sentence: ‘Pandas are an endangered species because they are dying off one by one.’”

C. The lack of a continually repeated review of some learned words in varied contexts could squander all the efforts the teacher had put into learning if students forget the known words as well (Schmitt, 2000). The teacher can use the infusion approach to EFL by saying, “Can you find the giant panda on the blackboard, label it, and say it in English?”

VI. Furthermore, according to Krashen’s (1981) affective filter hypothesis, anxiety must be low in order for maximum English language acquisition to occur. In this vein Mandarin (the learners’ mother tongue) or a mixed code of Mandarin and English can be
useful in infusing the teacher’s teaching and reducing learners’ learning difficulties on English.

<table>
<thead>
<tr>
<th>Target Vocabulary &amp; Phrases</th>
<th>Vocabulary: giant panda, endangered species, extinction, habitat, deforestation, starve, bamboo, bloom, appropriate, fur, preserve, typhoon, hurricane, disaster, collapse, temperature, global warning, giant panda, bamboo forests, endangered species, distribution, paw, cubs, conservation, take action to, be sure to, die off. They say . . . . But I disagree . . . . Because . . . , Therefore . . . ., etc. Phrase: To tell (you) the truth . . . . It is important (for people) to . . . ., What if we don’t do anything about it . . . ., What would you do if we start to . . . ., It is important for us to . . . ., etc.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Motivation:</td>
<td>Some activities will be incorporated into this lesson for the purpose of inspiring students’ attitude and motivation to learn. Some inquiry questions will arouse students’ interest in exploring this topic. An activity to arouse students’ interest follows. 1. The teacher will show students some objects and will pronounce the names of each in English: a sandball, a chopsticks gun, a leaf, a small piece of red brick that students can use to draw on the pavement, rubber bands that can be used to make a jump rope, and pictures of a firefly, a scarab, and silkworms. Later, the teacher will display and pronounce the names of other objects in English, such as a Gameboy, a model car, a yo-yo, and a cell phone, inviting students to...</td>
</tr>
</tbody>
</table>
challenge themselves on how many words they remember by calling out their names in English. Later, for the purpose of drawing students’ attention and involving them in the day’s lesson, students will be asked to contrast the two groups of items in small-group discussion to share and dialogue.

2. Furthermore, the teacher will show the trailer from the documentary film *An Inconvenient Truth* in English with Chinese subtitles followed by some inquiry questions, such as “What do you think about the statement ‘Did the planet betray us or did we betray the planet?’” to invite students to engage in an interactive discussion in the classroom on the environmental protection issue. Summing up, students will be expected to use the target English vocabulary and phrases associated with this particular lesson.

<table>
<thead>
<tr>
<th>Time schedule:</th>
<th>Six class sessions with total 300 minutes.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Activity:</td>
<td>Class discussion, group work, class debate</td>
</tr>
<tr>
<td>Materials:</td>
<td>2. Computers with Internet access</td>
</tr>
<tr>
<td></td>
<td>a. The 5-minute online trailer for the documentary film <em>An Inconvenient Truth</em> directed by Davis Guggenheim will be shown in class followed by some questions, such as “What do you think? Have people really caused global warming?” The trailer is available from <a href="http://app.atmovies.com.tw/movie/movie.cfm?action=trailer&amp;film_id=faen00497116">http://app.atmovies.com.tw/movie/movie.cfm?action=trailer&amp;film_id=faen00497116</a></td>
</tr>
</tbody>
</table>
b. Students will view a 5-minute video on pandas produced by the Smithsonian National Zoological Park. The teacher will pose questions, such as “How big is a panda cub at birth?” “In which season are panda cubs born?” The video is available at http://nationalzoo.si.edu/Animals/GiantPandas/default.cfm?cam=PC4

c. Students will view a 5-minute slide show of panda photos, and the teacher will ask questions for students inquiry, such as “Are pandas related to bears, or do they belong to the same family as large cats?” The slide show is available at http://nationalzoo.si.edu/Animals/GiantPandas/MeetPandas/PandaCubGallery/default.cfm

d. Students will view a map of prehistoric panda distribution, historic panda distribution, and current panda distribution (2 minutes). The teacher will ask some questions, such as “We know pandas are one of China’s national treasures, but why do you think pandas lived in the misty mountains of southwestern China only?” The map can be found at http://nationalzoo.si.edu/Animals/GiantPandas/PandaHabitat/default.cfm

e. Students will listen to a giant panda’s bleat and cub’s
whimper (3 minutes) on Internet radio. The teacher will ask, “Can you take a guess which sound is made by the panda cub and which is made by the adult panda?” The Internet radio is available at http://www.sandiegozoo.org/animalbytes/t-giant_panda.html.

d. Students will view 5 minutes of live video of pandas at the San Diego Zoo and will answer the question, “Can you imagine what the panda does all day?” The live video is available at http://outstream.camzone.com/panda.php?cmd=timelapse&day=9.

g. During their free time students may search related resources on the giant panda, which can be found at the following websites:


c. Pandas International at
http://www.pandasinternational.org/kids.html
d. Video by MSNBC of a panda giving birth at
http://www.msnbc.msn.com/id/8004316/

3. Worksheets such as each lesson of the Task Instruction
Sheet, Class Debate Rubric (Appendix H), and Team
Interaction Feedback Evaluation Form (Appendix E) will be
put into an envelope and distributed to each group so they
can follow the directions or fill out information.

4. Necessary supplied include pencils, pens, markers, crayons,
pieces of drawing paper, an alarm bell to record the time,
Post-It notes, and two extra tables to display various toys
and dictionaries on English/Chinese, English/English, and
Chinese/English.

5. Encyclopedia, books, children picture books which contains
additional information on the environmental issues and
giant panda will be available to review (See references)

Procedure:

Session 1 (Day 1)

I. Motivation (5 minutes)

A. At the beginning of the lesson, the teacher will show students a
sandball, a jump rope made of rubber bands, and pictures of a firefly, a
scarab, and silkworms and place them on a table. The teacher will also
display some contemporary items like a Gameboy, a yo-yo, a model
car, and a cell phone on another table.
B. In accordance with the EFL infusion approach, the classroom will include a vocabulary wall for each unit. The teacher will write the names of the toys noted above in English on the blackboard so that students will have increased opportunities to see and hear to those new words, matching the English and Chinese versions correctly during the learning process.

C. The teacher will engage in dialogue in English with the students about the pictures and objects to help them acquire the target vocabulary. For instance, the teacher will initiate a series of questions in English about giant pandas, pointing out the keyword giant panda or using descriptive words, such as big, huge, large, or a picture to illustrate so that students get the idea and recognize the meaning of this new word. This type of talk about words helps students expand their vocabulary while they encounter it in natural dialogue. More examples follow:

“Have you ever seen a sandball?” “Do you know what the sandball is for?” “We all read the Chinese myth about a poor child who caught lots of fireflies for school. Do you have that picture in your mind?” “Do you know where we can find fireflies now?” “If we cannot see fireflies any more, what does that signify?” “What’s it like to have silkworms as your pets?” “How long do you think it takes for baby silkworms to spin cocoons and finally become moths?”

II. Information collecting (10 minutes)

A. The teacher will show students these items or invite them to take a close look or even touch them so they learn more about them.
B. The teacher will ask some questions in English to draw the attention of the students. “What are these items used for?” If students are unable to identify the items, the teacher can play with them a bit so that students know they are toys.

C. The teacher will say, “Everybody probably recognizes these items by their Chinese names, but what are they called in English?”

D. The teacher will display English-to-English or English-to-Chinese dictionaries, so students feel free to use them to check any words they don’t know.

E. The teacher may write the name of each item on the blackboard as students identify it.

III. Information analysis (20 minutes)

A. The teacher will continue this dialogue and ask students in English to state the differences among them. “Did you ever play with the sandball, a leaf, etc., when you were little?” “Can you make your own toys without spending any money?” “Pretend you are stranded on a desert island without people, TV, or computer games. How would you spend your leisure time?”

B. The teacher will ask students to list the differences between the toys children played with long ago and the toys of today. Suggested responses follow:

1. The toys represent different eras. The piece of red brick and sandball were toys of children long ago. The yo-yo and Gameboy are popular today.
2. The toys differ in cost. The Gameboy is expensive, and the battery needs to be charged all the time; otherwise, it will not work. By contrast we keep silkworms as pets and get their food from the white mulberry tree. In other words, we still can have fun without spending money by raising silkworms at home.

3. The sources of the toys are different. For example, the leaf, on which we can play a tune, comes from nature; we need technology to design and produce the Gameboy.

IV. Information sharing (15 minutes)

A. Invite students to share their ideas either in English or Mandarin by continuing this discussion topic. “What toys did you usually play when you were little?” “What do you usually do during your leisure time: watch TV or play computer games at home?” “How would you describe your experiences running through a field without your shoes on, making fire for a barbecue, or playing in water with your friends instead of going to the swimming pool and worrying about germs?” “How can you tell whether fruit is ripe enough to pick if you are stranded on a desert island?” “How many of you can make a fire without a match, paper, or kindling material?”

B. After a short time sharing their ideas, ask students “How many of you would like to go camping instead of watching TV at home?”

C. Give index cards to each group, and ask each group to write down on one side of separate index cards the new words they just learned but need more time to recite. On the reverse of the index cards, they should
write down the explanations in Mandarin or draw a picture of it. Finally the cards should be mounted on the vocabulary wall in a special area. The teacher will encourage students to review these new words frequently until they have full command of correct spelling and pronunciation.

Session 2 (Day 2)

I. Motivation (10 minutes)

A. Once students get the idea of what we can learn from nature, the next topic related to the lesson will be the weather.

B. The teacher will write some English keywords, such as *typhoon*, *hurricane*, *flood*, *collapse*, on the blackboard so that students have better understanding of the words with correct spelling and phonology.

C. Using the talk-around-words approach, the teacher will conduct a dialogue about nature. For instance, the teacher may start a series of questions: “OK, let’s talk about the typhoon. Is a *typhoon* scary?” “Have you had any experience with a typhoon?” “Have you ever found tadpoles in your backyard ditch after a typhoon?”

D. The teacher will ask students to listen to the following news report in English and ask, “Are you familiar with this situation?” “What would happen if your house were totally *flooded* with water higher than just up to your knees?”

The *Typhoon* Bopha brought a night of rain in Taitung, and the water rose to knee level on the street. Motorcyclists faced some car problems if
they insisted on riding through the water. Desks and chairs were all soaked in water, making it troublesome for business owners to straighten things up. Please note the serious collapse of the trees, stones from the mountain. ABC News

E. The teacher will give students 15 minutes to engage in a group discussion with one another on what they might do if they encountered this situation.

II. Information collection (15 minutes)

A. In this session, students will learn about disasters in which thousands of people lost their homes or died.

B. Display some photos on the devastation of Hurricane Katrina and the tidal wave of Indonesia available from the following websites:


5. One year later tourists share their footage and memories with
III. Information analysis (15 minutes)

A. The teacher will ask students, “Could we have a hurricane in Taiwan?”
“What are the differences between a typhoon and a hurricane?” “What causes these disasters?”

B. The teacher will encourage students to use dictionaries or online dictionaries to determine the definitions of typhoon and hurricane.

IV. Information sharing (10 minutes)

A. When disasters happen, there is nothing we can do about them, but “What specific preparations can we make before disasters come?

B. Students may raise ideas, such as the following: Prepare a disaster supply kit, move valuable items to higher ground when the typhoon comes, move heavy objects to the lower shelf so they will not fall down to hit people when the earthquake comes, etc.

V. Extended activity (5 minutes)

A. If time remains, the teacher can also use a fun activity to help students see the relationship between humans and nature. First, the teacher will invite two students to help her with a skit in class. The teacher will explain to them: “I am going to steal one of your pens. Initially, you
will not react with facial expressions, but you may whisper something
to your neighbors even though both of you know the whole situation is
staged. I will keep stealing your pens until you complain or yell in front
of the class instead of keeping silent.” Finally, the teacher will ask
students to pretend this situation happened on them. I will say, “If your
things suddenly started disappearing without explanation, what would
you do? Would you try to find out who the thief is? Or keep silent?”

B. At the end of the class, the teacher will ask students to keep today’s
discussion in mind for the 5-minute video during the next section.

Session 3 (Day 3)

I. Motivation (5 minutes)

A. The teacher will tell students, “We have experienced typhoons or
earthquakes in Taiwan; consequently, we know how those natural
disasters affect people. A tremendous disaster could have a great
influence on the survival of people or the habitat of an entire animal
species.”

B. If the class takes place in summer, turn off the air conditioner and tell
students it is out of order. The teacher will ask students to guess the
answer to this question: “What’s the temperature today?” “What if we
had to stay in the room without air conditioning for several weeks?
What could we do?” “Do you think the temperature this year is hotter
than last summer?” “Have you paid attention to temperatures year to
year and whether temperatures seem hotter each year?” “Have you ever
heard about the global warming?” “Do you know that global warming threatens the survival of the world?”

C. If the class takes place in winter, turn the air conditioner on high (cold). The teacher will ask students how long they can remain in the cold classroom?

D. The teacher will write some keywords on blackboard, such as *global warning, storm, temperature, deforestation, threat,* etc.

E. The teacher will show the trailer for *An Inconvenient Truth* directed by David Guggenheim at http://app.atmovies.com.tw/movie/
movie.cfm?action=trailer&film_id=faen00497116

II. Information collection (10 minutes)

A. The teacher will post a statement from the movie: “Scientists believe that we are causing global warming.”

B. The teacher will display some statistical data:

1. The number of storms per year from http://www.realclimate.org/hurricane_edf.png


III. Information analysis (25 minutes)

A. After viewing the trailer the teacher will ask students, “Did the planet betray us?” or “Did we betray the planet?”

B. The teacher will ask students to pretend we are nature and consider “What behaviors we hope humans will practice to be good to us and
what unfriendly behaviors we want them to avoid?”

C. The teacher will list some answers on this issue. For instance, students might say, “Don’t cut down trees in an area.” “We can plant trees to protect Nature.” “Don’t over reclaim,” etc.

D. The teacher will ask students, “What can we do to improve the quality of people’s environments and wild animals’ habitats as well?

IV. Information sharing (10 minutes)

The teacher will invite students to share their reflections and what they want to do to protect our planet after viewing the trailer for An Inconvenient Truth.

Session 4 (Day 4)

I. Motivation (5 minutes)

For fun, the teacher will have students listen to sounds, watch a video, and solve a puzzle.

II. Information collection (5 minutes)

A. The teacher will give each group an envelope containing seven pictures conveying basic information about the giant panda. They are

1. Images in black and white only, representing the colors of panda fur

2. A map of China, the natural habitat of the panda

3. A mountain with the altitude of 5,000 to 10,000 feet, representing another feature of the panda habitat

4. Bamboo, conveying the idea that giant pandas eat bamboo
5. A large paw, showing that giant pandas have powerful wrist bones to grasp and crush bamboo.

6. A friendly handshake between China and America; and a gesture of rejection from Taiwan, suggesting the Taiwanese government’s rejection of two giant pandas from China.

7. World Wildlife Fund (WWF), the conservation organization working to save the endangered species (U.S. Fish & Wildlife Service, 1999)

B. Students will form groups to illustrate their idea of what these pictures represent.

C. The teacher will ask students to write down what they know about a giant panda either in English or in Chinese. This handout will be a good source for teacher and students to track their knowledge about the giant pandas as they move from novices to experts.

III. Information analysis (20 minutes)

A. The teacher will give students several sources—encyclopedia or computer resources—to research additional information on the giant panda.

B. The teacher will play the sounds of a panda cub several times or show the panda Internet video so that students can obtain additional ideas.

The materials is available at http://www.sandiegozoo.org/animalbytes/t-giant_panda.html#Photos

C. The teacher will post questions on the board to provide hints to answer the question: “What animal is black and white and loved all over the
world?” “What do you think about importing the giant panda to Taiwan from China?”

IV. Information sharing (20 minutes)

A. The teacher will invite group members to share their answers with class.

B. The teacher will pose the following question: “Why or why not we can have giant pandas as pets at home?

C. The teacher will remind students about the class debate presented as a TV show to take place during the last class. The debate topic will be “It is a good idea to have giant pandas on display in zoos in Taiwan?”

D. The teacher will explain to students that in a debate the side they argue has nothing to do with their personal opinions; therefore, each group will be assigned by the teacher to take the affirmative side or the negative side.

E. The teacher will encourage students to collect information on giant pandas, using their free time after class.

F. The teacher will tell students about a warm-up class debate during the next session, so they have a clear idea of how to run a class debate and feel comfortable voicing their ideas in the actual class debate.

G. The teacher will ask group members to work on their vocabulary wall based on each unit topic by adding some powerful new words they encountered in the context of their reading. To gain ownership of the wall, students may add any words from their textbook vocabulary glossary with which they continue to have trouble. The purposes of
decorating the students’ vocabulary wall are not only to help them devise clear English statements for their debate but also to help them clarify the meaning of words or phrases as they acquire them.

Session 5 (Day 5)

Warm-up class debate (50 minutes):

A. The teacher will choose an easy topic for debate practice before the actual debate. The topic should be familiar to students so they can easily formulate their opinions. A suggested practice debate topic is “Students should wear school uniforms at school.”

B. The teacher will divide students into two sides—affirmative and negative. Each side has four subgroups, three students in each group. The remaining four students will assist the teacher in arranging the classroom setting and recording the points of the speakers according to the Class Debate Rubric (Appendix H).

C. The teacher will ask students to think about strong points for their side and the points of their opponents. This kind of brainstorming could not only help them gather the reasons behind an affirmative or negative position, but students could also predict the talking points of the other side.

D. The teachers will ask students to list as many points as possible and to put the points in order according to the degree of their strength so that they can deliver their speeches more forcibly.

E. The students will decide who present which points and think about how they will rebut their opponents’ points.
F. The teacher will explain the speaking order for the debate:

a. The first affirmative speaker introduces the topic and brings up the affirmative team’s first argument.

b. The first negative speaker states the negative team’s first argument.

c. The second affirmative speaker states the affirmative team’s second argument.

d. The second negative speaker states the negative team’s second argument.

e. The third affirmative speaker states the affirmative team’s third argument.

f. The third negative speaker states the negative team’s third argument.

The class will repeat this cycle as many times as necessary until all members have stated their positions. In order to allow everyone to state his or her views, the class debate rubric will include three points for all group members delivering their opinions and two points for only two group members making their speeches and so on.

G. Students will support their evidence. The four kinds of evidence adapted from Lubetsky, LeBeau, and Harrington (2000) include the following:

1. Example: From your own experience or from what you heard or read

2. Common Sense: Ideas that you believe everybody knows
3. Expert opinion: The opinions of experts, which come from study reports

4. Statistics: Numbers, which also come from research studies

H. The teacher will provide directions to students on how to open their statements with appropriate words by following the four-step rebuttal (Lubetsky, et al., 2000.)
   1. Step 1: “They say…”
   2. Step 2: “But I disagree…”
   3. Step 3: “Because…”
   4. Step 4: “Therefore…”

I. The teacher will assign the time schedule for each speaker. In order to run the debate smoothly, the time for each speaker will be 30 seconds for the constructive speech and 30 seconds for the rebuttal speech. The time limit will also be included on the class debate rubric.

J. The teacher will ask students to decide which two groups in each subgroup will be responsible for the opening speech in the debate.

K. The teacher will ask each group to select their roles by filling out the Team Interaction Feedback Rubric so that group members will take responsible for each job and contribute their efforts to the group.

L. Once students have experienced the whole class debate procedure, the actual class debate will be held during the next class session.

M. If time is available, the teacher will invite students to share their reflection on the first debate: “What did I learn from the class debate?”

We hope to learn to see things from both sides and hear some
reasonable support from both sides.

Session 6 (Day 6):

Running the actual class debate

The teacher will set up the debate classroom (Appendix I) in an appropriate arrangement. The 12 students on the affirmative side will sit opposite the 12 students on the negative side. Three recorders will also sit together and fill out the Class Debate Rubric in order to record which team is the final winner. Opposite the three recorders will be seated a host who will monitor the debate; the host will track both sides’ questions and statements and also act as timekeeper. The host will have a diagram of the debate for reference.

Group Reward

In order to build ownership among group members, any groups who show competent performance in the class debate activity will receive a reward. The competition scores will be calculated by adding up the scores of Class Debate Rubric, which have been noted by three recorders. At the conclusion of the debate, the teacher will ask the students to raise their hands to show which team has presented its ideas more insightfully.

Student evaluation and reflection

The teacher will use the following evaluation forms to assess students:

A. Class Debate Rubric
B. Teamwork Interaction Peer Feedback Form
Data collection for this lesson.

A. Teamwork Interaction Peer Feedback Form (students’ observation)
B. Student Interaction in Small Groups (teachers’ observation)
C. Reflective Journal

References


Taiwan: Poplar.


Far East Book.


APPENDIX G
TASK INSTRUCTION SHEET
Task Instruction Sheet
In this envelope you will find (1) a task instruction sheet, (2) a Class Debate Rubric, (3) a Teamwork Interaction Peer Feedback Form, and (4) a seating plan for the class debate.

I. Individual Accountability
Within your group, decide who is going to do each job and place a sticky name tag with clear job description on your shirt. Below you will find a description of the three specialized jobs.

A. Team Leader – This person will take charge of the group discussion procedure, including the order of speakers for the debate. The Team Leader will help the teacher deliver worksheets to group members and monitor their behaviors (respect one another’s opinions, smooth discussion).

B. Recorder – This person will record the discussion contents and collect any materials the group needs by surfing the Internet or looking in textbooks. This person will also take responsibility for editing all of the written information from the group before presenting it to the class.

C. Speaker – This person will organize the results of the group’s discussion and to see that group members know their final information before presenting or sharing with the class.

II. Task

A. Vocabulary wall
   1. Based on each unit topic, group members will contribute to the vocabulary wall by adding news words.
   2. Students are free to add new words to the vocabulary wall based on each unit topic by adding powerful new words they encountered in the context of their reading. To gain ownership of the wall, students may add any troublesome words from their textbook glossary.
   3. Students may remove their words from the wall when they have fully mastered the correct spelling and pronunciation of the word.

B. Class debate
   1. A class debate will be presented as a TV show during the last class session. The debate topic will be “It is a good idea to have
giant pandas on display in zoos in Taiwan?”

2. The debate will follow the order listed here:
   a. The first affirmative speaker introduces the topic and brings up the affirmative team’s first argument.
   b. The first negative speaker states the negative team’s first argument.
   c. The second affirmative speaker states the affirmative team’s second argument.
   d. The second negative speaker states the negative team’s second argument.
   e. The third affirmative speaker states the affirmative team’s third argument.
   f. The third negative speaker states the negative team’s third argument.

3. Students will choose from four types of support to back up their evidence (LeBeau, Harrington, & Lubetsky, 2000):
   a. Example: From your own experience or from what you heard or read
   b. Common Sense: Ideas that you believe everybody knows
   c. Expert opinion: The opinions of experts, which come from study reports
   d. Statistics: Numbers, which also come from research studies

4. A good rebuttal has four steps (LeBeau et al.):
   Step 1: “They say . . . .”
   Step 2: “But I disagree . . . .”
   Step 3: “Because . . . .”
   Step 4: “Therefore . . . .”

5. Each speaker will have 30 seconds to express his or her position.

III. Rewards
   A competition among groups will run during the lesson. Rewards will be determined by adding (1) the scores on the Class Debate Rubric (2) and students’ show of hands at the end of the debate indicating which team presented the most persuasive ideas.
APPENDIX H
CLASS DEBATE RUBRIC
## Class Debate Rubric

<table>
<thead>
<tr>
<th>CATEGORY</th>
<th>4</th>
<th>3</th>
<th>2</th>
<th>1</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Time-Limit</strong></td>
<td>Presentation is 30 seconds long.</td>
<td>Presentation is 20 seconds long.</td>
<td>Presentation is 10 seconds long.</td>
<td>Presentation is less than 10 seconds OR more than 30 seconds.</td>
</tr>
<tr>
<td><strong>Respect for Other Team</strong></td>
<td>All statements, body language, and responses were delivered respectfully and appropriately.</td>
<td>Statements and responses were respectful and appropriate, but once or twice body language was not.</td>
<td>Most statements and responses were respectful and appropriate, but the speaker made one sarcastic remark.</td>
<td>Statements, responses, and/or body language were consistently disrespectful or inappropriate.</td>
</tr>
<tr>
<td><strong>Use of four-step rebuttal</strong></td>
<td>All counterarguments followed the four-step rebuttal, and statements were accurate, relevant, and strong.</td>
<td>Most counterarguments followed the four-step rebuttal, and statements were accurate, relevant, and strong.</td>
<td>Counterarguments seldom followed the four-step rebuttals. Statements were accurate and relevant, but several were weak.</td>
<td>Counterarguments did not follow the four-step rebuttal at all.</td>
</tr>
<tr>
<td>1. They say . . .</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. But I disagree . . .</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Because . . .</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Therefore . .</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Use of</strong></td>
<td>Every major point was well supported with relevant examples, common sense, expert opinions, and statistics. (Use 4 steps)</td>
<td>Every major point was adequately supported with relevant example and common sense but without expert opinions or statistics. (Use 3 steps)</td>
<td>Every major point was supported with example and common sense but without any expert opinions and statistics. (Use 2 steps)</td>
<td>Not every point was supported. (Use 0 step)</td>
</tr>
<tr>
<td>1. Examples</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Common Sense</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Expert opinion</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Statistics</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Oration</strong></td>
<td>All (100%) arguments were delivered in English.</td>
<td>Most (80%) arguments were delivered in English.</td>
<td>Half (50%) the arguments were delivered in English.</td>
<td>No (0%) arguments were delivered in English.</td>
</tr>
<tr>
<td><strong>Speech</strong></td>
<td>Presented more than 3 ideas.</td>
<td>Present about 2 ideas.</td>
<td>Presented 1 idea.</td>
<td>Presented no ideas.</td>
</tr>
</tbody>
</table>

Presenter’s name: _______________  Total Score: ___________
APPENDIX I

CLASS DEBATE SETTING
Class Debate Setting

Host

The affirmative side

The negative side

Three Recorders
APPENDIX J
GENERIC CONSENT FORM
GENERIC CONSENT FORM
(Students)

Project title: A Study of an EFL Classroom Learning Community in a High School in Taiwan: An Action Research

I want to do a research on a group of 47 vocational high school students’ motivation in learning English. I want to do this because the results of this study could encourage teachers struggling to improve EFL students’ motivation to learn and perform and help students recognize that they are valued learners with the potential to find their own way to success in learning a new language. I would like you to take part in this project. If you decide to do this, you will be asked to participate in 30-minute interviews three times during the 4 months of the study- at the beginning, middle, and end of the semester. Besides, the participants’ name and biographical anonymity will be protected.

Taking part in this project is entirely up to you, and no one will hold it against you if you decide not to do it. If you take part, you may stop at any time.

If you want to know more about this research project, please call me Hsiaosan Chen at phone 330-673 8182. The project has been approved by Kent State University. If you have questions about Kent State University’s rules for research, please call Dr. John West, Acting Vice President and Dean, Division of Research and Graduate Studies (Tel. 330.672.2704).

Sincerely,

HsiaoSan Chen
English teacher

CONSENT STATEMENT(S)
I agree to take part in this project. I know what I will have to do and that I can stop at any time.

____________________________________________________________________________________

Signature       Date
GENERIC CONSENT FORM
(Students’ parents)

Project Title: A Study of an EFL Classroom Learning Community in a High School in Taiwan: An Action Research

I want to do a research on a group of 47 vocational high school students’ motivation in learning English. I want to do this because the results of this study could encourage teachers struggling to improve EFL students’ motivation to learn and perform and help students recognize that they are valued learners with the potential to find their own way to success in learning a new language. I would like your child to take part in this project. If you decide to do this, your child will be asked to participate in 30-minute interviews three times during the 4 months of the study- at the beginning, middle, and end of the semester. Besides, the participants’ name and biographical anonymity will be protected.

Taking part in this project is entirely up to your child, and no one will hold it against you if your children decide not to do it. If your child takes part, your child may stop at any time.

If you want to know more about this research project, please call me Hsiaosan Chen at phone 330-673 8182. The project has been approved by Kent State University. If you have questions about Kent State University’s rules for research, please call Dr. John West, Acting Vice President and Dean, Division of Research and Graduate Studies (Tel. 330.672.2704).

Sincerely,
HsiaoSan Chen
English teacher

CONSENT STATEMENT(S)
I agree to take part in this project. I know what I will have to do and that I can stop at any time.

____________________________________________________________________________________
Signature                               Date
同意書

研究計劃名稱：行動研究 探討台灣高中生在 EFL 教室學習社群的學習表現

各位同學/家長您好，

在此新的學期我將要從事一項研究計劃，此計畫是針對 47 位培德高職學生們在英語課學習動機提升方面的研究探討。我做這份研究的目的是期望此研究結果能幫助英語教師們在自我教學方面更加精進；同時並能幫助學生們了解其自身的學習潛能，建立信心以期找尋適當且有效的語言學習方法。因此我要邀請你/您的孩子參加此項研究計劃。如果你同意參加此研究，你/您的孩子將會參與共三次的 30 分鐘的個別錄音訪問與 15 分鐘課堂學習活動的錄影。為了確保你的隱私與權益，您的資料和大名將會以匿名的方式呈現。

當然您有權利在研究的過程中隨時終止或拒絕接受訪問。如果您想要知道更多有關此研究計劃歡迎聯絡我：陳曉珊 電話：330-673 8182。此研究計劃已獲得 Kent State University 同意。因此如果對此研究有任何問題也請聯絡 Dr. John West （電話：330-672 2704）

敬上，

陳曉珊
培德高職英文科教師

我同意參與此研究計劃

簽名：學生__________________________

家長__________________________ 日期：__________________
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REFERENCES


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