

Cooperative Learning Based on Interpersonal Interaction and Communication Competence for Improving EFL Learning

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Abstract

The study investigated the effects of cooperative learning based on interpersonal interaction and communication competence for improving English as a Foreign Language (EFL) learning of technical college students in Taiwan. Data were gathered using qualitative interviews. For four months, the same teacher instructed both groups using traditional grammar translation whole class method and cooperative learning strategies. The results certify that: (a) students in a cooperative learning strategy group which emphasizes help-seeking behavior and tutoring assistance from peers show their willingness to study in EFL settings; (b) by motivating students with their learning self-responsibility in a cooperative learning environment where help seeking and tutoring assistance from peers are encouraged, students are able to use the target language in an interactive way and advance their self-improvement and self-reinforcement. The study concludes that incorporating the strategy of peer interaction in a cooperative way cannot be evaluated without looking at the competence of learners' self-regulation, which is considered to be a principal concept in charge of learners' responsibility in problem-based learning. The students' development as self-regulated learners is an important topic and should not be neglected within the EFL domain of problem-based and solving learning.

Keywords: Cooperative Learning, Interpersonal Communication, English Learning

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Introduction

Johnson and Johnson (1999) perceived the importance and effect of Cooperative Learning (CL) as a plentiful methodology category fundamental to educational research, theory, and practice. Johnson and Johnson have promoted the use of merging CL in group activities for learners to accomplish shared work and to achieve common learning goals. The essential elements of cooperation have been explored. The elements contribute to aspects of cognitive development and applied sociolinguistic content relative to language acquisition and achievement and the ability of social interaction among learners in small groups.

Cooperative learning can be briefly defined as learners in small groups working together as a team to deal with problems, to accomplish a task, or to achieve a common goal (Artz & Newman, 1990; Johnson & Johnson, 1998). CL can be particularly defined as one of the teaching and learning methods to be administrated and operated whenever students share and interact in pairs or groups in all activities. Students work together, interacting with peers, and exploring knowledge and experiences for a general goal, and concluding long-term plans with one another in a community.

The Johnson brothers (1998) discussed CL as a technique which can expand what students have learned independently and together in small groups. Slavin (1990) revealed that students in CL activities should be aware of what has been assigned as an individual's task or a group task, be responsible and active to deal with and learn from the distributed material, and be certain that all group members have learned, too.

Depending on theoretical backgrounds, CL has a significant role in subject matter training and in bilingual education, highlighting interpersonal interaction and communication competence. The nature of CL and its connection with multiple intelligences involves appreciating each individual as a unique person. CL strategies show positive effects on the impact of students' academic achievement and social attitudes and behaviors. The value of CL is basically created for students and by students' working together as a team to achieve a common goal. Although processing cooperative activities requires teachers to prepare group material and instruct group activities appropriately, the rewards and benefits are worth engaging in the effort.

Literature Review

Some of the greatest theorists of the 20th century highlighted the use of CL rooted in the establishment of social interdependence, cognitive developmental and

behavioral learning theories. The essential CL thought and implication according to the social, cognitive, and behavioral theorists and scholars follow:

Social Interdependence Theory

Positive interdependence is perceived in cooperation and is the foundation of social interdependence theory, which facilitates goal accomplishment and a positive outcome (Deutsch, 1949, 1962; Johnson & Johnson, 1989; Johnson & Johnson, 2005; Johnson, Johnson, & Smith, 1998). “In the early 1900s, Kurt proffered that groups were dynamic wholes in which the interdependence among members could vary” (Johnson, Johnson, & Smith, 1998, p. 30). The nature of a group created through common goals determines the interdependence among the group members. *Dynamic wholes* are the relationships among groups, therefore any change of any individual of the group or subgroups may influence the other individuals in the group or subgroups (DeZure, 2000; Johnson, Johnson, & Smith, 1998).

Since the 1940s, social interdependence theory in general has fueled exploration of the greater conceptual structure. The theory has been broadened and has contributed to concepts such as positive interdependence, negative interdependence, and nonexistent interdependence, matching the significance of cooperation and competition or individualism which accentuates personal endeavors in human behaviors (Johnson, 1970; Johnson & Johnson, 1974, 1989, 2005; Johnson, Johnson, & Smith, 1998).

Behavioral Perspectives

Started in the early of 20th century, research on behaviorism dominated the agenda of the learning model associated with human beings. The concept, through the experimental analysis of behaviors of animals, was linked to the reaction of stimuli and responses. Analyses include Pavlov’s dog and Skinner’s box. The observable performance in stimulus and response reactions has been taken into consideration in understanding ever-complex human behavior in learning. If stimuli did not result in the desired response of the animals, then the repeated use of encouragement or punishment reinforced the effect of training. The relationships between stimuli and responses associated with animal behaviors were operationally deduced as a learning model or a learning theory for human beings in the early of 20th century. Through the experimental analysis of behaviors of animal mechanical type operant conditioning chambers, the theory of constantly repeated learning was effectively used and emphasized in language skill training (Dai, 2007).

Learning has been defined by behaviorists as a long-lasting adaptation in behavior from know-how and rehearsal. Learning associated with this behavioral view is internalized and not acknowledged until observable behaviors appear to demonstrate its existence. Behavioral methods are applied to emphasize the

relationship between the influential environment and people's extrinsic behaviors (Huitt & Hummel, 1999).

Behavior Perspectives and CL

Some researchers argued that the fragility of the thinking of cognitive psychologists exposed psychology to a movement of change and its greater possibility. The extent of overall influence is derived from behaviorists. The relevant researchers pointed out the importance of acquiring an understanding of the conclusive significance that may reinforce, preserve, or reduce behavior. With regard to functionalism in psychology, behavior is noted as adaptability for on-going survival among individuals. Inner processes take control of behavior. Comprehension of the inner acts of an individual is linked to an understanding of the relationships and outcomes of the acts. Therefore, issues concerning the function of awareness, thinking, feeling, and observable behavior are essential. Research in any field and all relevant methods which could assist in response to such issues are measurable (Overskeid, 2006, 2008; Owens & Wagner, 1995; Pierce & Cheney, 2004; Uttal, 2004; Wagner & Owens, 1992).

Bandura focused on behavior imitation. The acquisition of imitative responses has been valued in observational learning. Through contiguity, sensory happening, and conjoining acquaintance associated with the external hints and internal mental process, an observer can perceive a typical response after a model demonstration. Simultaneously, the learned replication along with the perceived response is likely to be elicited from the observer. When applied, Bandura's perspectives of behavior imitation into student behavior deliberation, models rewards or punishments for indicating progressive or aggressive behaviors mainly rely on administered reinforcement. The use of a model rewarding or punishing system principally has its importance in the performance of learned replication in imitative responses (Bandura et al., 1963b; Bandura, 1965).

Behavioral learning explanation assumes that the motivation for students to work hard to accomplish tasks comes from positive reinforcement. However, there is negative reinforcement to deal with students' failure in task-based accomplishment. CL offers rewarding stimuli for members in the groups to contribute individual effort. Research has also demonstrated the potential of group rewards which can reinforce the quantity and quality of academic performance. Behavioral dependence is contradictory to a humanistic access to schooling with regard to the positive and negative effects. The qualification of dependent and independent group reward procedures is examined through a humanistic alternative in behavior contexts. The practice of interdependent group rewarding is useful to enhance target behavior for student academic performance in general education classrooms. In addition, group-

oriented dependence allows the majority of effective group intervention to moderate student behavior (Cashwell et al., 1998; Johnson & Johnson, 1998; Kelley & McCain, 1995; Kratochwill & Shernoff, 2004; Skinner, Williams, & Neddenriep, 2004; Stage & Quiroz, 1997).

Cognitive Perspectives and CL

Cognitive developmental theory, contributed by the Piagetian and Vygotskian theories, has so far been the most influential cognitive perspective adopted as the framework for investigating cognitive development and intellectual growth referred to learning. Applied to socio-cultural interaction contexts, learners are encouraged to learn with more knowledgeable peers and instructors. Applying the perspectives of cognitive development and social interaction to evaluating the effectiveness of CL in school programs, integrated ability and mixed gender dyads or groups are especially conceptualized with regard to learner performance in task accomplishment.

Research indicates that vigorous socio-cognitive struggles transpire when individuals interact with an environment where cognitive uncertainty appears and frequently motivates perspective grasping and cognitive development (Piaget, 1983; Tudge & Rogoff, 1989). CL benefits knowledge construction and cognitive enlargement. When learners cooperate with others in learning to negotiate and to acquire understanding and skills for problem-solving, learners simultaneously engage in processing perspectives being transferred and connected into human internalized mind operation (Johnson and Johnson, 1998). CL activities require learners to recall, generalize, and elaborate perceived knowledge that enables learners to communicate with other peers in the groups. Understanding the cognitive structure of the new knowledge connected with learners' prior knowledge is essential and effective to improve the information processing while making generalizations and elaborations (Brown & Campione, 1986; Wittrock, 1986).

Krol and other colleagues used the posttest design and control group comparison to investigate the effect of CL on treatment pairs in the performance of mathematics and language tasks for sixth graders. This research applied Piagetian and Vygotskian perspectives to developmental aspects in learning. The focus was the importance of social interaction and participating in negotiation actively for the diversity of notions within the pairs or among the groups. The results of the treatment pairs revealed more significantly high performances in working on language tasks as compared with the control group. In addition, the scores of the treatment pairs on task accomplishment were higher than the control group (Krol et al., 2004).

Self-regulation for an Activated Condition

Self-regulation related to ego managing performance associated with decision-making and action-leading is at work when people take control over both themselves

and their surroundings. Self-regulation is a psychological process that involves a person modifying or adjusting to an activated condition in goal-directed behavior (Baumeister, 1998; Finkel et al., 2006). Coordination in self-regulated behavior could be a challenge when people interact with others to share a common goal. Diverse methods are proposed to examine the hypothesis that high-maintenance in interaction may weaken an individual's level of self-regulated performance on follow-up unrelated tasks. The proposed work could be taken as a model and play a major role in the success of self-regulated performance through interpersonal processes (Finkel et al., 2006; Vohs & Baumeister, 2004)

Responsibility and Goal Achievement

In CL settings, students are encouraged to help one another learn and be active, participating in group-oriented tasks. Within structured cooperative learning environments, group, task, and outcome interdependence can promote involvement and responsibility in working together (Allen et al., 2003; Baird & White, 1984; Bachrach et al., 2006; Slavin, 1991). Research indicates that students can model good learning skills within the structured environment. A more proper environmental setting can develop student preparation for self-directed learning (Dynam, Cate, & Rhee, 2008).

Self-directed or self-regulated goal achievement based on the features of task, group, and outcome interdependence creates different roles in cooperative groups, including conflict consultant, leader, reader, recorder, timekeeper, and reporter. In addition, research on the achievement effects of learning in cooperative ways shows that the use of group contingencies and reward systems within CL is hypothesized as stimulating students for achieving a good job in group work. Student responsibility is essential in promoting cooperative and interactive learning groups which can enable reinforcement in learning. And the rewards among individuals and groups can motivate shared goal achievement and advance self-efficacy (Baird & White, 1984; Ellis, Ratcliffe, & Thomasson, 2003; Skinner, Williams, & Neddenriep, 2004; Slavin, 1991).

Motivated Interaction and the Use of Target Language

Motivating interaction is used to encourage students to employ learned languages to process research on global issues. Cooperation and global education emphasize the importance of communicative languages and communication skills. Several common goals are shared in the context of CL which is based on social interdependence accentuating group interaction, mutual benefit and understanding, and task and outcome interdependence (Allen et al., 2003; Bachrach et al., 2006; Turner, 2001; Yamashiro & McLaughlin, 1999). Since students are able to model good learning skills within the structured environment, a more suitable environmental setting such

as learner-oriented, interactive, and cooperative backgrounds, which increase learner responsibility, may promote self-directed and motivated learning (Cantillon & Macdermott, 2008; Dynan, Cate, & Rhee, 2008; Glennon, 2008).

Studies indicated that students are motivated and take responsibility in learning when applying the whole language approach to content-based instruction for practicing the four skills of English language in cooperative study groups. Students tend to become more knowledgeable in the cooperative and integrated language environment where interaction emerges to motivate the use of target language (Yamashiro & McLaughlin, 1999).

Sile'n's Dialectic Relationships

Sile'n's dialectic relationships describe that Students' movement of choice and decision making are to construct an activated condition for targeted studies provided by the educational structure. Students' ability to make use of options, interpretation of opportunities, and opportunities for responsibility offered by the educational program are three correlations for students' independence versus dependence in taking responsibility for their own learning (Reis, 2008; Sile'n, 2003; Sile'n & Uhlin, 2008). See Figure 1.

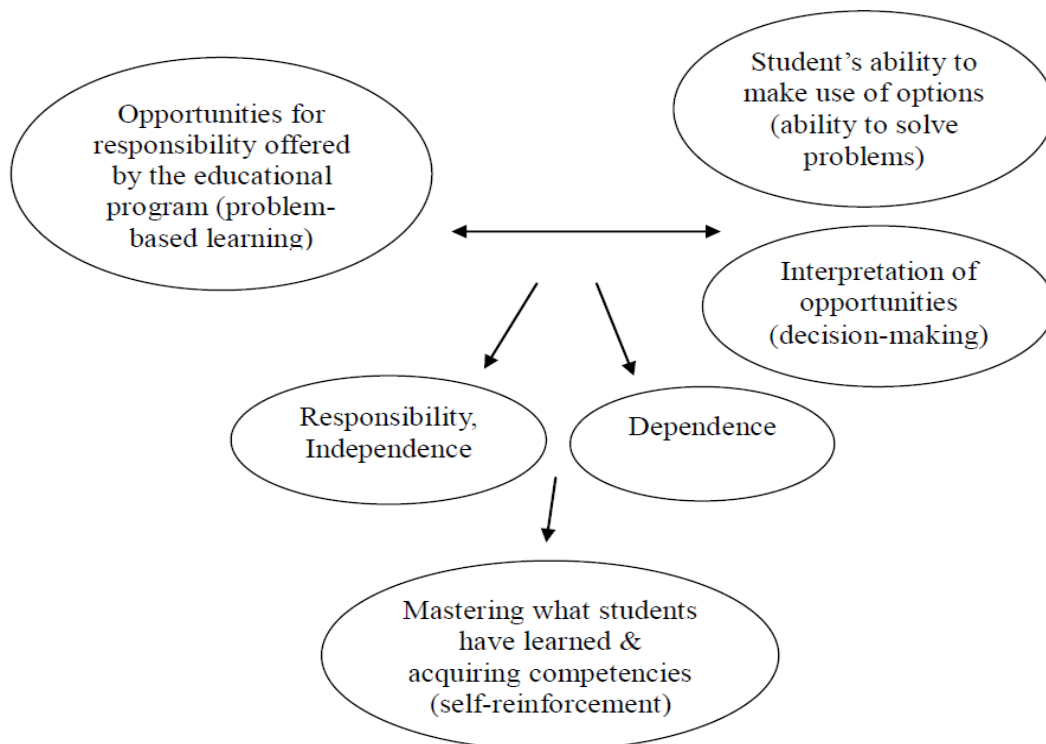


Figure 1. A dialectic relationship, which influences students' responsibility and independence (Reis, 2008; Sile'n, 2003; Sile'n & Uhlin, 2008).

Method

The study investigated the effects of cooperative learning based on interpersonal interaction and communication competence for improving English as a Foreign Language (EFL) learning of technical college students in Taiwan. Data were gathered using qualitative interviews. For four months, the same teacher instructed both groups using traditional grammar translation whole class method and cooperative learning strategies. Interviews with 17 randomly selected students from the samples were arranged at the conclusion of the study. The interviewer prepared a protocol including five open-ended questions employed in a face-to-face interview which required about 3 to 5 minutes for each student. The purpose of the interviews was to clarify students' concepts of situations in learning English and to determine students' preferences for instructional designs, either Cooperative Learning (CL) strategies or traditional Grammar Translation Whole Class (GTWC) instruction. The 5 questions are:

1. Do you think interpersonal communication skills can help you learn English?
2. How well have you performed in English classes in interpersonal communication skills in a group discussion or in the pair work?
3. How well have you performed in a group discussion to complete a task?
4. What role have you played in English classes, a listener or a presenter?
5. How well does mutual assistance work in English classes among students and between students and the instructor?

The researcher used a qualitative and phenomenological approach (Johnson, 1988; Naden & Eriksson, 2004; Nino, 2010; Trotman, 2006) to expose the interview questions that deal with the task of exploring meanings and consequences of applying interpersonal communication skills to traditional whole class lecturing and cooperative strategy group English classrooms. Johnson pointed out that “confusions between memories for imagined events and memories for perceived events arise from the same processes as do accurate classifications of memories: from processes of attribution or judgment based on phenomenal qualities of experience” (Johnson, 1988, p.390). The importance of understanding the meaning and significance in interpersonal communication skills to culture and pedagogy is connected to English language performance, which the researcher believes to be of special value when it comes to learning in interactively communicative ways such as in a research area. The aim of qualitative studies is to explain and clarify the character of a phenomenon and its meaning (Johnson, 1985, 1988a; Johnson & Raye, 1981; Naden & Eriksson, 2004; Nino, 2010) which is relevant to explore EFL learners' experiences and opinions of interpersonal communication in English language classrooms. The researcher used

both focus groups and qualitative interviews to obtain in-depth information from participants (Ho, 2006; Kaplowitz & Hoehn, 2001; Tong, Sainsbury, & Craig, 2007; Tremblay, Hevner, & Berndt, 2010). The researcher wanted to gain access both to the more detailed individual experiences and values related to interaction and communication in English language classrooms. By using both of these research methods the researcher was able to compare, triangulate, and validate the collected data (Ho, 2006; Schraw, 2009; Steckler et al, 1992).

The interviews lasted for 3 to 5 minutes for each interviewee, and it was recorded, transcribed, coded, and categorized for analysis.

Results

The results are presented as texts related to the patterns that arose during the process of analysis. Each text starts with an overview of the results consistent with the focus groups and the individual interviews. Even though there are many shared characteristics between the focus groups and the individual interviews, the findings are presented independently. The focus group data contains opinions that represent ideas that are transferred among the participants. Avoiding any influence from the groups, the individual interview data show more detailed or unique personal experiences described in the participants' own words.

Data gathering activities for all of interviews include semi-structured interviews with 17 students and their lecturer and three focus group discussions. Based on the prior quantitative data, the interviews were divided into three focus groups: seven members in group A, six in B, four in C. "A" students have the highest mean score on Interpersonal Communication Competence (ICC). "B" students have the moderate score on ICC. "C" students have the lowest score on ICC.

English is a required subject for the randomly selected interviewees. English proficiency is an important factor for them to achieve successfully in EFL learning. The core content in this required subject for English learning needs students to appropriately engage in listening and reading and writing in the literary texts. In addition, students would have gone through peer interaction activities in which they are able to use the target language in a group discussion or in the peer work. Interpersonal communication works as the medium of learning and instruction where English is taught as a foreign language. Most of the interviewees admitted to feeling comfortable with the teacher's use of both English and Chinese languages in lectures. The students who accepted the invitation to participate in the interviews were curious and excited about being part of such a research study.

The First Premise

Based on interview questions 1, 2, and 3, the researcher's interest is premised first on the belief that interpersonal communication competence is the main factor in the process called *peer interaction* in English learning:

R: Do you think interpersonal communication skills can help you learn English?

A1, A3, A4, A5, A6, A7, B1, B2, B4, B5, B6, C1, C2, C3, C4: Yes.

A2, B3: No.

The majority of the interviewees agreed that ICC can help them learn English. Fifteen interviewees agreed with the aid of ICC in English learning. A2 and B3 disagreed with the ICC aid. The two interviewees between the high and moderate levels of ICC disagreed with the ICC aid in English learning. Students at the high level and the moderate level of ICC do not always agree with the ICC aid in English learning. However, their attitudes toward the peer interaction are appropriate.

A2: "...I do not think ICC can help me learn English. ... I am okay in completing a task in a group discussion..."

B3: "... I do not think ICC can help me learn English. ICC is ...But I can do well in a group discussion to complete a task. I play a role as both a listener and a presenter in English classes. I help classmates learn English, and they help me, too."

Most of the interviewees agreed with the ICC aid in English learning while they made self-evaluation of English performance. Some of the interviewees supported interpersonal communication which can assist in peer interaction for oral English learning.

A3: "... ICC can help me communicate interactively with others and enhance our understanding of English lessons. ICC can also improve oral English presentation skills..."

C1: "... I think ICC can help me learn English. I can learn how others speak English. I think I have performed well in group discussions when completing a task..."

R: How well have you performed in English classes in interpersonal communication skills in a group discussion or in the pair work?

A1, A3, A4, A5, A6, A7, B1, B5, B6: Pretty good.

A2, B2, B3, B4, C1, C3: Not too bad.

C2, C4: Need improvement.

C2: "I am not good at ICC in a group discussion... I think ICC can help me learn English...ICC assists me in communicating with others to solve my learning problems... my classmates help me more..."

C4: “I am not doing well in group discussions. My ICC is poor. But I think ICC may help me learn English. I seldom join our group discussion when completing a task. I do not play a role as a listener or a presenter in English classes...”

Nine of the interviewees reported performing actively, interacting with peers in the English classes for group discussion or in the pair work. Six of the interviewees reported interacting with peers moderately. Two interviewees described themselves as being inactive in the English classes. All the interviewees in focus groups A and B described themselves as performing well in peer interaction in the English classes. C1 and C3 presented themselves as moderate ICC. Even though C1 and C3 have a lower mean score on ICC, they reported having moderate ICC in peer interaction. Comparatively, interviewees C2 and C4 indicated that peer interaction is in need of improvement. All others claimed that their performance is between pretty good and moderate. However, when asked how well they have performed in a group discussion to complete a task, only C4 gave her answer as “improvement needed”. Even though C4 described herself as performing in peer interaction passively, she prefers learning together with classmates in English classes.

R: How well have you performed in a group discussion to complete a task?

A3, A4, A5, A6, A7, B1, B2, B3, B4, B5, B6, C1, C3: Very good.

A1, A2, C2: Fair.

C4: Need improvement.

C4: “... My ICC is poor. But I think ICC may help me learn English... I do not play a role as a listener or a presenter in English classes. I think my English is poor... I prefer learning with classmates. I cannot learn English by myself. I need their help...”

The Second Premise

The second premise is that the fundamental essential of peer interaction is willingness to seek help and accept tutoring from peers. The following is based on the interviewee responses to question 4.

R: What role have you played in English classes, a listener or a presenter?

A1, A4, B1, B2, B5: A listener.

A3, A6, A7: A presenter.

A2, A5, B3, B4, B6, C1, C2, C3: Both a listener and a presenter.

C4: None

Eight of the interviewees play a role as both a presenter and a listener in the English classes. Five are listeners, three are presenters, and one is not a listener or a

presenter. All the interviewees show their willingness to seek help and accept tutoring from peers.

- A1: "... I play a role as a listener in English classes. The teacher lectures all the time.... To achieve in English learning, it is better to interact with another classmate. We can help each other..."
- A2: "... I play roles as both a listener and a presenter in English classes. I can ask questions of other classmates and listen to their opinions for an understanding of English lessons and can solve my learning problems..."
- A3: "... I like working cooperatively in a group. We can discuss with one another in both the English and the Chinese languages to solve our learning problems... I play a role as a presenter in English classes...Classmates and I help one another in English learning..."
- A4: "... I am good at ICC ... I am not good at using the English language in these discussions... I like to work together with my classmates... I am usually a listener in English classes..."
- A5: "... I have learned from my classmates... I play roles as both a listener and a presenter in English classes. Everyone in the same group should join and share his or her assigned work to complete a task... When I have English questions, first I will think of the questions by myself, and then go to my classmates..."
- A6: "... I play a role as a presenter in English classes.... My classmates help me learn English a lot... I go to my classmates for help if I have problems in learning English..."
- A7: "... I have learned a lot from my group. I always play a role as a presenter in English classes... when studying in a group, I can communicate with and seek help from other classmates..."
- B1: "... I play a role as a listener. I take notes and discuss spelling and pronunciation with others... I prefer group study ... I think my classmates can help me learn English..."
- B2: "... I play a role as a listener in English classes. I usually listen to what others say and sometimes I add some ideas... my classmates and I are good friends... I have learned some grammar from my classmates..."
- B3: "... I play a role as both a listener and a presenter in English classes. I help classmates learn English, and they help me, too."
- B4: "... I play a role as both a listener and a presenter. I am a team leader. I do listening more often because my English is not good enough. Our team has performed properly... We help each other to learn English..."

B5: "... It is good to have a group discussion to complete a task. I like to listen to others' opinions first and then add my suggestions... I like to play a role as a listener in English classes. I like to listen to what others say..."

B6: "... I prefer a group discussion to complete a task... I play a role as both a listener and a presenter in English classes. I am a team leader... I help my classmates learn English a lot."

C1: "... I have played roles as both listener and presenter. My classmates help me a lot."

C2: "... I play a role as both a listener and a presenter in English classes. My classmates and I can help each other to learn English... my classmates help me more than I help them."

C3: "... When I have English questions, I have to ask help from others... I play a role as both a listener and a presenter... my classmates help me learn a lot in English classes."

C4: "... I do not play a role as a listener or a presenter in English classes... I prefer learning with classmates... I need their help. They really help me a lot..."

Most of the students in the traditional group reported their role as a listener *all the time* in the English classes. The instructor lectures most of the time in the GTWC group. Mutual interaction exists between the instructor and the whole class. Students in the GTWC group can practice peer listening, reading, and writing with a picture demonstration. As compared with the CL strategy group, more students show their roles as both a listener and a presenter in the English classes. Students in the CL strategy group have more opportunities to become a presenter and interact within a group for discussions.

The Third Premise

The third premise is that the core value of peer interaction is estimated by learners' willingness to study and learning effectiveness. Interaction depends on the quality and effectiveness of learning. The following is based on the interviewees in response to interview question 5.

R: How well does mutual assistance work in English classes among students and between students and the instructor?

Two of the interviewees preferred self-regulated study rather than group discussion. One reported giving more help to classmates. Ten of the interviewees reported receiving more help from classmates. Four interviewees showed mutual assistance among their peers. However, no one showed that the instructor gives more assistance than their classmates.

A1 is a student in the traditional GTWC method group. Her teacher lectures all the time. She expected to learn English together with her classmates to solve her learning problems. She said: “To achieve in English learning, it is better to interact with another classmate.” However, assigned teamwork does not seem to satisfy her in problem solving.

As she explained: “I do not even know how to solve my problems in learning English.”

Completing writing on her own is still a challenge.

“... I play a role as a listener in English classes. The teacher lectures all the time. We have to practice the listening drills in our textbook... We all have the same assigned teamwork to interact in a group of two but to complete our writing individually. To achieve in English learning, it is better to interact with another classmate. We can help each other. I am not good at problem solving. I do not even know how to solve my problems in learning English...”

A2 is another student in the traditional group. He claimed that he and his classmates used Chinese to communicate in learning English. Since the GTWC group did not often employ group discussion, he did not think that he could do it very well in English. Instead, he prefers to study on his own.

“My performance in ICC and discussions with peers in English classes is so-so. I do not think ICC can help me learn English. ICC can only be used in discussions in Chinese. We use Chinese to communicate and to learn English. I am okay in completing a task in a group discussion, but I do not think I can do it very well in English... I like studying on my own. But I still can offer other classmates my ideas and opinions in English lessons.”

A3 is a student in the CL strategy group. She has a strong belief in ICC help for learning English and performed well in group discussion. A broad view brings her to value both the ICC and English which are important for global communication. She likes working cooperatively in a group. She claimed: “We can discuss with one another in both the English and the Chinese languages to solve our learning problems.” The quality of interaction and learning effectiveness are revealed in her explanation: “I think I have performed well in group discussions when completing our tasks and my English has improved.”

“I have performed well in group discussions in English classes. I believe that ICC can help me learn English. Since English is a global language, both the ICC and English are important for global communication. ICC can help me communicate interactively with others and enhance our understanding of English lessons. ICC can also improve oral English presentation skills. I like working cooperatively in a group. We can discuss with one another in both

the English and the Chinese languages to solve our learning problems. I think I have performed well in group discussions when completing our tasks and my English has improved...”

The other students, A5, A6, A7, B2, B4, and B5 responded to the third premise that interaction depends on the quality and effectiveness of learning estimated by learners’ willingness to study and learning effectiveness. They claimed:

“... I like cooperative learning in a group, sharing and practicing the four English skills. I have learned from my classmates and I think my English has improved...”

“... I am good in a group discussion to complete a task... I play a role as a presenter in English classes. I am the leader of our team. I share ideas with our team and like them to give their answers in turn to complete the assigned tasks. I think my English has improved...”

“... I have learned a lot from my group. I always play a role as a presenter in English classes. My English listening and speaking are okay for me to express my ideas in our group. I think my English has improved...”

“... I have no interaction with our English teacher. I do self-study most of the time in English classes... my classmates and I are good friends. We can communicate well. ICC helps me to solve my grammar questions. I have learned some grammar from my classmates. I think my English has improved...”

“... We have been assigned to several groups, and we have to do oral presentations all the time. My English is poor, but I am enthusiastic about learning English with my classmates. I am doing fine in group discussions when completing a task. I think my English has improved...”

“... It is good to have a group discussion to complete a task. I like to listen to others’ opinions first and then add my suggestions... When I have questions, I will solve the questions by myself. Other classmates can give me some suggestions. They also help me learn English a lot. I interact with our English teacher well. I think my performance in English classes is good.”

Based on the third premise that the core value of peer interaction is estimated by learners’ willingness to study and learning effectiveness, there are seven interviewees (A3, A5, A6, A7, B2, B4, & B5) who responded to the researcher’s concern that interaction depends on the quality and effectiveness of learning. The findings reveal that peer interaction involves peer tutoring and the use of the target language which can raise students’ self-confidence and enhance the effectiveness of the target language learning. Both groups, the students who have received more help from their

classmates and the students who have expressed mutual assistance among peers in the process of learning English, like peer tutoring more.

Discussion

This primary report based on all three premises focuses entirely on the qualitative analysis of data from three focus group discussions, group A comprising seven, group B, six, and group C, four students. In the next stage, the discussion has incorporated data analysis from the transcripts of the interviewees in emerging themes.

Emerging Themes.

The following themes have emerged from primary data analysis from three focus group discussions with the interviewees: the first premise is that ICC is the main factor in the process called *peer interaction* in English learning; the second premise is that the fundamental essentials of peer interaction are willingness to seek help and accepting tutoring from peers; the third premise is that the core value of peer interaction is estimated by learners' willingness to study and learning effectiveness.

General perceptions of ICC.

The majority of the interviewees agreed that ICC was helpful in learning English. There are 15 interviewees who viewed ICC as an aid in English learning. As A1 explained:

“... ICC can help me learn English. There is no problem for me to complete a task in a group discussion...”

A3 said: “I have performed well in group discussions in English classes... I believe that ICC can help me learn English... Since English is a global language, both the ICC and English are important for global communication.” A4 explained that “I am not good at using the English language in these discussions... ICC can help me learn English... I like to work together with my classmates to complete a task.” A more pragmatic student, B2 said: “... my classmates and I are good friends. We can communicate well. ICC helps me to solve my grammar questions.” C2 explained that “ICC can help me learn English. When I need help in learning English, ICC assists me in communicating with others to solve my learning problems.”

As for individual perspectives of ICC, students had varied views of its value as an assistant, but practically no one expressed a denial of its value as the main role in the process called *peer interaction* in English learning. A2 explained that discussion with peers in English classes was just “so-so.” He claimed that “I do not think ICC can help me learn English.” He insisted that “ICC can only be used in discussions in Chinese. We use Chinese to communicate and to learn English.” In fact, he is fine with a group discussion to complete a task, but he said “I do not think I can do it very

well in English.” B3 said: “I do not think ICC can help me learn English. It is not related to our lessons.” B3 denied the possibility of ICC assisting in English learning, but he accepted help-seeking and tutoring from peers. He explained that “I can do well in a group discussion to complete a task... I help classmates learn English, and they help me, too.”

A2 presents an individual perspective. He is one of the members in traditional GTWC group and his ICC was categorized as high. The instructor in the GTWC group used Chinese in lectures all the time. The GTWC group students have no opportunities to open a group discussion nor can they experience more interpersonal communication among peers. However, A2 prefers to be solely responsible for English performance, as he claimed that “I like studying on my own.” This may explain why he said: “I do not think ICC can help me learn English.”

As B1 in the traditional GTWC method group explained, “When we have an oral test, it is a chance for us to practice oral speaking in English, but I do not like it. I do not like to use English in a discussion, but I like to learn English together with my classmates.” B1 at the moderate level of ICC shows her problems with a poor linguistic foundation in the target language. She does not like to use English in discussion. However, she likes to study English with her classmates. She said: “My classmates can help me learn English.” She also claimed that “I take notes and discuss spelling and pronunciation with others.” This explains why she likes to learn English together with her classmates.

Impact of peer interaction on learning behavior.

Students seemed to respond in very much the same way when it comes to learning together with their classmates. Most of them claimed that they prefer help-seeking and accepting tutoring from peers. Some of them would appreciate individual self-regulated study. However, all of them did not reject any group discussion or teamwork for learning English. A5 from focus group A, B1, and B2 from focus group B probably spoke for most of their classmates when they said:

“... we are classmates and we know one another well...”

“... my classmates can help me learn English... we are good friends...”

There are some students who insisted on the importance of using the target language through interactive communication. A strong belief in ICC as an assistant in learning English should be put into action to use the target language during peer interaction. As A7 explained: “Both the ICC and English are important for us to communicate with foreigners... My English listening and speaking are okay for me to express my ideas in our group... I can understand most of the English dialogues and sentence structures.” And B1 said: “I take notes and discuss spelling and pronunciation with others.”

Students sought help from their classmates when they had questions. So, help-seeking was the access to problem solving in learning English. This may work well for the CL strategy group. As A4 said: "I seldom play a role as a presenter because I cannot speak English well and do not often talk in English in a group discussion... If I have any English question, I will go to my classmates first."

Some of the others who sought help from their classmates in solving their English learning problems explained as follows:

A5: "... I play roles as both a listener and a presenter in English classes. Everyone in the same group should join and share his or her assigned work to complete a task. But, I do not usually speak in English during discussions. I depend on my classmates to learn English..."

A6: "... My classmates help me learn English a lot. Our teacher gives us appropriate assistance, but I do not usually go to her. I go to my classmates for help if I have problems in learning English. I am not used to solving problems on my own."

A7: "... I am not used to interacting with our English teacher. I usually go to my classmates if I have problems in learning English. If they cannot help me, then I will ask our teacher for assistance."

B3: "... I play a role as both a listener and a presenter in English classes. I help classmates learn English, and they help me, too."

B5: "... Other classmates can give me some suggestions. They also help me learn English a lot..."

C2: "... I play a role as both a listener and a presenter in English classes. My classmates and I can help each other to learn English. However, my classmates help me more than I help them."

C3: "... I play a role as both a listener and a presenter. I think my classmates help me learn a lot in English classes."

C4: "... I do not have any interaction with my English teacher. If I have a question, I would rather go to my classmates. They can help me. I do not think I can solve questions on my own."

Students who depend more on their peers in learning English mainly show their considerations for a poor linguistic foundation in the target language. It is apparent that the more interactive the mode of the EFL classes, the more likely it was to engage students in learning. Peer interaction not only can increase help-seeking and accepting tutoring from peers, but also can promote the use of the target language through interactive communication. The lecturer who gave directions to the two groups explained that incorporating the use of cooperative strategies in target language

learning was a way of giving them exposure to peer interaction and communication, and encouraging them to explore learning on their own. As long as students are willing to study, their attitudes in target language learning will be positive.

Expectations of self-responsibility and self-reinforcement.

Interviewees in both the traditional GTWC method group and the CL strategy group claimed that they seldom had contact with their English teacher. Only four of the interviewees, A3, A5, B4, and B5, show proper interaction with their English teacher. As A3 explained: “I have performed well in group discussions in English classes... Classmates and I help one another in English learning... I have good interaction with the teacher and classmates.”

“... I depend on my classmates to learn English. They help me a lot. When I have English questions, first I will think of the questions by myself, and then go to my classmates. I also interact with our English teacher.”

“... Our team has performed properly. We can understand one another, and we have good communication. We help each other to learn English. I think my self-regulated study needs improvement. And I am okay to interact with our English teacher.”

“...When I have questions, I will solve the questions by myself. Other classmates can give me some suggestions. They also help me learn English a lot. I interact with our English teacher well. I think my performance in English classes is good.”

Most of the interviewees in the two groups expect peer tutoring more than teacher’s assistance. No doubt that the teacher provided opportunities for consultation in the process of English learning but apparently, according to the interviewed lecturer, only the students who play a role as a leader in a cooperative group are more likely to ask questions. Most of the students prefer peer tutoring and have more perceived understandable English in a group discussion.

Students show less positive interaction with their English teacher, resulting in the challenge of students’ taking responsibility which is considered to be a concept relevant to problem solving learning (Ljungman & Sile ’n, 2008; Sile ’n 2003; Sile ’n & Uhlin, 2008). The lecturers should be aware that “students become agents in the learning situation, considering their own needs and interest in learning a special content in relation to the framework of the educational programmes” (Sile ’n & Uhlin, 2008, p. 464). As long as students become agents in the learning situation, they should be more conscious of the self-regulation and ability of problem solving in the learning process. They should value more the effective strategies for learning, the central content, and the influence of their own concerns and interests within the

context studied (Boekaerts, 1997; Flavell, 1987; Boekaerts, Pintrich, & Zeifner 2000; Schunk and Zimmerman 1994; Sile'n & Uhlin, 2008).

The instructor who gave directions to both groups explained that applying problem-based learning techniques in EFL classes trains to be responsible in self-regulated learning and fosters ability in problem solving in English learning. Only when learners can make their own decisions and master what they have learned, are they able to acquire competencies and to be independent and responsible learners in self-learning contexts. The statements indicated by the instructor in the interview relate to Sile'n's dialectic relationships (Sile'n, 2003) which are shaped to express a challenge to students' taking responsibility for their own learning (see Figure 1). Sile'n's dialectic relationships describe what the researcher observed: Students' movement of choice and decision making are to construct an activated condition for targeted studies provided by the educational structure. Students' ability to make use of options, interpretation of opportunities, and opportunities for responsibility offered by the educational program are three correlations for students' independence versus dependence in taking responsibility for their own learning (Reis, 2008; Sile'n, 2003; Sile'n & Uhlin, 2008).

Summary and Concluding Discussion

Cooperative Learning (CL) has been widely practiced in education and some early research has shown that CL is the most widely-applied theory (Cooper & Mueck, 1989, 1990; George, 1994; Sharan & Sharan, 1989, 1999). CL involves activities which allow students with opportunities to interact with one another and share accountability in a CL environment. Academically and socially, students practice critical and integrated thinking through CL and participate in group processing, which in turn raise the self-confidence and enjoyment of the subject matter (Lyman, 1992; McNeill & Payne, 1996).

The qualitative interviews reported here highlight the CL based on interpersonal interaction and communication competence for improving EFL learning. Incorporating the strategy of peer interaction in a cooperative way cannot be evaluated without looking at the competence of learners' self-regulation, which is considered to be a principal concept in charge of learners' responsibility in problem-based learning. The students' development as self-regulated learners is an important topic and should not be neglected within the EFL domain of problem-based and solving learning.

EFL learners need to develop competencies for opportunity choosing and decision making on their own to raise their confidence and self-reinforcement in EFL

learning. If learners can influence their own learning situation and gain the competence to master what they learn, “they take responsibility and make their own decisions” in the domain studied. “If they feel abandoned and left alone, unable to manage, their behavior will instead be characterized by dependence” (Sile'n & Uhlin, 2008, p. 464). Accordingly, the researcher has concluded that the use of help-seeking and peer tutoring strategies in EFL learning predicts high interaction and interdependence among learners.

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透過合作學習之人際互動與溝通提升英語學習成效之研究

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摘要

本研究之目的是調查透過合作學習之人際互動與溝通能力模式對提升英語學習的成效。研究對象是台灣之科技大學學生，研究方法是以質性訪談方式來搜集資料，在四個月研究期間中，由同一位英文老師同時指導兩個班級之學生，分別採用傳統文法翻譯法與合作學習策略。結論顯示，合作學習策略組學生表現出樂於尋求同儕幫助、接受同儕輔導的學習模式；在合作學習環境中，藉由激勵學生的自我學習責任，使學生被鼓勵尋求他人協助並接受同儕輔導，學生會更能以互動方式使用目標語言，藉此促進其學習的自我改善與自我增強。同時，結論強調，同儕互動的合作學習模式，不能忽略學習者的自我調控能力，亦即學習者必須為學習負責，同時兼具解決問題的能力。因此，培養學生自我調控學習及解決學習困難是學習英語中不容忽視的重要課題。

關鍵詞：合作學習、人際互動與溝通、英語學習

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