

# 大學生對於合作學習之看法與使用策略

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## 摘要

合作學習是一種教學策略，藉由使用一些教學方法，使教學更為多樣化，學生能更加主動學習。此研究的目的乃在探討學生對於合作學習的看法，與他們慣常使用的一些學習策略。此外，學生在合作學習中，常扮演的一些角色，本研究也將提供一些教學上的建議。資料蒐集來自於問卷與訪談。研究發現大部分學生對合作學習，持有正面的學習態度，他們認為合作學習提供廣泛的學習機會，並且有助於分享不同的意見。參與者常使用的學習策略包括有傾聽、交涉、與溝通的技巧。參與者認為合作學習的過程中，同學必須主動且負責，有時還扮演輔導組員的角色。教師必須將時間管理得當，並觀察學生的學習進展。電腦科技可以運用於合作學習，做為輔助的工具。合作學習有助於創造一種多元化的學習環境，然而學生必須有自主性，才能在學習中成長與進步。

**關鍵字：**合作學習、學習策略、學習角色、語言教學



# College Student Perceptions and Strategies toward Cooperative Learning

## Abstract

Cooperative learning (CL) is a teaching strategy that uses various techniques to diversify teaching method. In CL students work in groups and use different activities to better understand learning materials and achieve their educational goals. The purpose of this study is to explore student perceptions of using CL. In addition, the study was to discover the strategies students used and roles they played in the use of CL. Data were collected through interviews and questionnaires. This study used descriptive analyses. The findings revealed that most students had a positive attitude towards the use of CL. They felt that CL provided them with more opportunities to learn and share different points of view. The participants commonly used several learning strategies, including negotiation, listening, communication, and interpretation. Students played active, responsible, or tutoring roles. CL appears to help create a supportive learning environment in which students become devoted to their own learning progress, yet grow together.

Key words: Cooperative learning, learning strategies, learner roles, language teaching.



# **College Student Perceptions and Strategies toward Cooperative Learning**

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## **I. Introduction**

Cooperative learning (CL) is a teaching approach that employs a range of specific techniques to introduce variety into teaching. CL is driven by the concept that learning can work better through interacting with peers rather than by depending on interaction with the teacher (Paintz, 2002). In a CL classroom, students, not teachers, become the center of the class. In CL, students work in small groups and the relationship between students and teachers is more interactive. Students need to develop a sense of responsibility in order to cooperate within groups (Baird & White 1984). Thus, a fruitful atmosphere is nurtured where students are accountable in their learning process. They can share different points of view and express their ideas freely. Since the students work in groups and perform activities in order to comprehend materials better, they can also help other group members to achieve their learning goals.

Panitz (1999) contends that competition is emphasized in schools because of the lack of basic knowledge of CL, which encourages communication rather than competition. Studies have found that students have a number of problems with CL, including time management, the share of the work, personality conflicts, and group preparation (Galton, Hargreaves, & Pell, 2009; Hassanien, 2007 ; Morris & Hayes,



1997). Students themselves identify other problems, including conflicts among peers, difficulty committing to the group, and staying on assignment. Gillies and Boyle (2010) argue that teachers must pay attention to the necessity of teaching social skills for group work. Peele (2012) also emphasized the helpful part of cooperative learning and showed ways to make group work more efficient. NCSS (2010) notes that teachers should help students expand skills such as problem solving, decision making, and working in groups, to enable them to become more effective citizens.

### A. purpose of this study

To help teachers implement CL, the purpose of this study is to explore student perceptions of using CL. This study also identified strategies students use and the roles they play in CL. Finally, this study also identified the difficulties they might encounter in the implementation of CL.

### B. Research questions:

1. What are the student perceptions of using CL?
2. Are there problems when working in CL?
3. What roles do students play in CL?
4. What learning strategies do students use in CL?

### C. Theory of CL

CL is based upon the philosophy of working together (Panitz, 2002). The approaches of CL value student centered learning by encouraging students to be responsible for their learning in class and to cooperate with their group members outside class. In addition to this “learning orientation” (Lowman, 1987), other teaching approaches include personal effort, competition of the tests to evaluate ability, and the evaluation of different levels depending on “grade orientation”.

Cooperative learning refers to students working in small groups in order to accomplish their goals (Kagan, 1994). They are responsible for their own learning as



well as that of their group members. The basic elements of CL (Kagan, 1994) include:

1. encouraging interdependence: group members should be interrelated.
2. individual responsibility: students are responsible for their shared work and for understanding the learning material.
3. equal involvement: group members share their task and participate equally.
4. concurrent communication: It may occur when students are permitted to interact with each other during the class time

CL includes learning situations where students work in groups to perform certain learning goals and are dependent on each other to achieve the target. Students thus simultaneously learn from and teach one another within the group environment. Bruner (1986) and Vygotsky (1978) in their student learning theory hypothesized the basics of group social communication and the development of student thought and cognition. Meloth, Deering, and Sanders (1993) maintain that cooperative learning and the development of thought are connected and recommend cognitive and social psychological perception come together in studying cooperative learning. Bennett and Dunne (1991) identify task-enhancing talk as occurring when students work in groups to perform in a certain specific activity.

In CL students have to socialize with group members and resolve problems together. It provides an environment where students are able to develop their social skills and observe their group member's performance (Breen, 1981). Vygotsky (1978) claims that students are able to perform at a higher level of intellectual thinking in cooperative situations than by working alone. The variety of group knowledge and experience positively contributes to the learning process. Burner (1986) maintains that cooperative learning techniques can improve problem-solving strategies because students are faced with different interpretations of a certain situation. Pantiz (2002) also mentions that it is necessary for teachers to model this



approach by seeking student opinions and suggestions for improvements in the course.

## II. Literature Review

Researchers have argued that the results of cooperative learning show that students using in this approach to the learning experience improve their academic achievement, behavior, and attendance. In addition, their confidence and motivation increase, and they have a greater fondness for their school and classmates. Research has found that students who gain considerably from doing cooperative work are those who give and receive more explanations (Webb, 1985). Webb (1985) also found that students who took part in CL have better performance on critical-thinking tests than those studying alone. Students in both groups had good performance on drills and practice tests. Such results support the learning outcomes claimed by proponents of CL.

Johnson and Johnson (1986) state that there is convincing evidence that through CL, students can achieve advanced levels of thought and retain information longer than by working alone or silently. Good & Brophy, (2000) and Slavin (1989) also found that students can receive higher educational achievement in CL than by studying on their own. Students can share their ideas through discussion and are responsible for their learning while helping develop critical thinking (Totten, Sills, Digby, & Russ, 1991). The experience of CL seems to be enriching because people talk to one another in real life situations in which they also learn simultaneously.

Haller et al. (2000) suggest that teachers facilitate student group interactions by introducing students to two modes of teaching interaction (including transfer of knowledge and collaborative sequences), enabling group members to effectively manage exchanges of knowledge in their work, and help students by distributing tasks in a way that minimizes role imbalances. Barry et al. (2000) contend that more



student talk is used in the area of meta-cognitive processes in CL. In particular, student talk is related to organizing group discussion, reviewing assignments and evaluating group work.

Yeh (2008) examined how Taiwanese children learned English in a CL situation. Data collection was through group evaluation sheets and class observations. The results showed that in general student language learning anxiety was ameliorated by CL. They felt comfortable with discussing their learning materials. Fogarty and Bellanca (1992) in their study stress the teacher's response after the implementation of CL, arguing that since student motivation increases, teachers are encouraged to try again. In addition, Çelikten et. al (2012) found that students who learned conceptual change oriented teaching through CL learned the concept of earth and sky better than students who learned through traditional science teaching.

Bolukbas et al. (2012) showed that compared to conventional teaching methods, CL is more effective in improving reading comprehension skills with students learning Turkish as a foreign language. Moreover, the students thought that they had fun because they actively participate throughout the lesson and they knew their classmates better because of the activities carried out. Based on the teaching outcomes and student descriptions, CL can improve student understanding of the material and develop student communication and group work skills.

### III. Method

#### A. Participants

A total of 158 (105 males and 53 females) sophomore finance and banking and electrical engineering majors taking required English courses at a university in Taiwan, participated in the study. Some of the students had experience in using CL in an English class environment. The study took one year to finish. Students were



required to get involved with CL in class. In addition to using the traditional teaching approach, the teacher also provided cooperative learning activities, such as problem solving.

## B. Procedure

Data were collected through interviews and questionnaires. There were 12 items on the questionnaire. The questionnaire was based on a review of the literature (Paintz, 1999 and Totten et al., 1991) adapted accordingly, were used to examine student perceptions of using CL. The interviews included ten questions aimed at understanding student problems with CL, what strategies they used in CL, and other opinions about CL. Thirty students were randomly selected to be interviewed, with each interview lasting for approximately 20 minutes.

A 5-point Likert scale ranging from 5 (strongly agree) to 1 (strongly disagree) was used to record students' responses. A pilot study of twenty interviewees was conducted. The results showed positive effects in CL. A pilot study of twenty interviewees was conducted by the researcher. Based on the participants' opinions, two questions were changed to make them more appropriate to the study. The results of the pilot study showed positive effects in CL.

## IV. Findings and Discussion

### A. participant responses

Most of the students had a positive attitude towards the use of CL. Almost all participants (90.5%) agreed that CL provided them with more learning opportunities (Table 1). The majority of the students (84.8%) felt that group work helped them better understand the course material. Nearly four-fifths (79.7%) of the participants agreed that it could stimulate their thought processes. Most of the interviewees (25 out of 30) said that because of sharing ideas, they engaged in brain storming which





helped develop their thought structure. Both Good & Brophy (2000) and Slavin (1989) also found that students gain higher educational achievement in CL than by studying on their own

In addition, most of the participants (84.2%) agreed that CL could help them express more of their ideas. In interviews, the participants thought that when working in CL, they could freely convey their ideas and exchange their opinions. Most of the interviewees (21 out of 30) said that they did brain storming and that they could obtain greater inspiration through CL. This is consistent with Webb (1985), who argued that CL can develop higher level thinking skills. Some researchers also maintain that in CL, the exchange of different ideas in groups can enhance student interest and encourage critical thinking (Kulick & Kulick, 1979).

Similar to the findings of Yeh (2008), more than half of the participants (68.3%) agreed that working in CL could reduce their anxiety (Table 2). Six interviewees said that they did not feel nervous because they did not have to express their ideas in front of the class. Their anxiety was considerably reduced. Some participants (7 out of 30) mentioned that they became active learners because they had to surf the web to find more information, which provided them more opportunities to learn. Moreover, the majority (82.3%) agreed that CL could help them overcome shyness with group work. When speaking in front of the class, students were afraid of making mistakes. Two interviewees said they could express their ideas more easily and felt less embarrassed in a group work environment. This is consistent with Krause et al. (2009), who argued that the aim of CL is to improve social skills and reduce anxiety.

Students are able to build their relationships through cooperative learning. The majority (82.3%) said that they could build social relationships through CL (Table 3). The interviewees (17 out of 30) also said that they could develop relationships with their group members. One interviewee said that he got to know his group members and that his relationships with them improved. In addition, most of the students (84.8 %) thought CL could also stimulate active learning. One participant said that



she could learn more through CL. When working in groups, students distributed their work to different group members. Thus, group members had to complete their assigned work. In this sense, they were required to actively participate in the work.

While working in CL, the majority (81%) thought they gained confidence. One interviewee said that her confidence had improved due to the process of learning. As Westbrook (2011) contended, student learning improves and students are more confident in using their learning styles to gain knowledge in cooperative groups. Most participants also thought that CL could help them improve English listening skills (Table 4) and practice communication skills (84.8 %) (Table 5). Most interviewees (20 out of 30) said that they could improve their listening and communication skills because they learned to express their ideas and be a good listener. Similar to the findings of Bolukbas et al. (2012), cooperative learning techniques could benefit not only reading comprehension skills, but also other aspects of skills including speaking, writing, and grammar.

Almost all of the students said that they could get more information through discussion (93.7%) (Table 6). Since they had to share their different points of view, most interviewees thought that they could learn more in this kind of social learning situation. Johnson (1999) argued that students develop problem-solving skills through the process of discussion and feedback from group members. A few participants said that they did not feel sleepy because they had more interaction in class. Four interviewees said that they liked independent learning, but it was acceptable for them to work in groups also. However, most of the interviewees (26 out of 30) said that they could more easily share different ideas within a group discussion. Salvin (1989) mentions that because of group work, the students make progress through participation in discussions, compared with competitive work where students do not take part in discussions.

## **B.Problems found in CL**



Some difficulties found when working in CL including a lack of learner autonomy and responsibility.

#### 1.Lack of learner autonomy

Some learners were passive learners.During group work, two participants said that one of their group members did not actively participate in the group discussion and lacked accountability in their group. One interviewee said: “One of my group members did not participate in the discussion.” Student autonomy is important in making student work progress smooth. As in Peele (2012), some students failed to commit to their work and to solving the problems with their task. CL can act as an alternative way to train passive learners to become active learners by assigning work work to group members.Teachers can offer encouragement to promote their confidence in finishing their tasks. In this case, group evaluation is good way to give hard working students extra credit.

#### 2.Lack of responsibility

A few group members did not work on their part of the assignment. One interviewee said that in her group work, two group members were not responsible for their work at all. To deal with this situation, students should be required to evaluate their own learning process and to evaluate the performance of each of their group member,to ensure that each student performs assigned tasks. Students have to invest in their own learning.

### C. CL strategies used by the participants

Some common strategies that the participants used in this study were negotiation, communication, interpretation, and listening. These strategies helped students further their learning progress in the CL approach.When students started to socialize with group members through the use of CL strategies,the results seemed productive.

#### 1. Negotiation skills:



To make learning more effective, one of the learning strategies the participants usually used was negotiating with their peer group. Some interviewees (17 out of 30) said that negotiation was important in order to reach an agreement with one another. If they have different opinions, they need to learn how to negotiate and compromise. When having problems, students can work in the large class and present their problems to see whether they can come up with better solutions. As Panitz (2000) argues, CL emphasizes social learning, so students are trained to work collaboratively to resolve conflicts and conduct negotiations. Social learning is a characteristic of CL, which can create an enjoyable as well as interesting learning experiences. Researchers argue that training students in disagreement situations is a key function of cooperative learning training (Aronson, 1978; Slavin, 1989).

## 2. Communication skills

Social skills were used when communicating with group members. The interviewees (20 out of 30) said that they could practice communication skills when conversing with other group members and could receive immediate feedback. They were able to freely express their own opinions. One interviewee also said he would not fall asleep when discussing things with group members. In CL students can be trained to make a decision as to how they will perform a task and complete their final work. Students must share their different points of view. Teachers can get involved in their discussion and students can receive immediate feedback. This is consistent with Yager, Johnson, and Johnson (1985), who argued that when students work in pairs, one partner expresses his opinion and the other asks questions, improving their communications skills. Valoris and Purcell (2010) indicated that cooperative learning strategies should involve effective communication skills. Students can build oral communication skills through the turn-taking process of discussions.

## 3. Interpretation strategy:

Interpretation strategy was used when working in groups. Some participants (14 out of 30) said that they needed to learn how to explain their ideas well, to prevent



other group members from misunderstanding or becoming confused. In CL, explanation plays a vital role in student learning processes and helps cultivate higher thinking skills (Johnson, Johnson, Roy, and Zaidman, 1985). One interviewee said: “If I don’t understand the material, the group members will offer explanations and make clarifications. It helps me understand and become interested in the topic.” During group discussions, teachers can intervene to help groups overcome social problems.

#### 4. Listening skills

One of the strategies the participants commonly used was to use listening skills and to act as listeners. Panitz (2002) observed that verbal and listening skills are employed when students discuss answers. The participants (15 out of 30) said that they needed to be good listeners when working in CL. They agreed that listening skills were important for CL learning strategy. When working in pairs, they have to share their ideas, listen to each other’s opinions, and discuss questions (Johnson, 1999). CL creates the opportunity for them to share parts of the task, further inspiring cognitive development.

### D. CL Roles played by the Participants

When in groups, students may play roles such as reporter and recorder (Johnson, Johnson, and Holubec, 1993). Students may be assigned different roles, which helps them build interpersonal relationships. They can develop their skills, which can be later applied in society and the outside world (Houston, 1991). In this study, students played different roles as follows.

#### 1. Active role

Cooperative learning has to actively include every student using different approaches to learning (Panitz, 2002). Most participants (24 out of 30) said they had to play active roles to make CL work. A characteristic of CL is that the participants have to change their roles from passive listeners to become active participants who



are totally engaged in the learning process. CL is thus one way to train passive learners to become active learners.

## 2. Responsible role

When working in groups (CL), almost all the interviewees (26 out of 30) said that they were required to be responsible for their work and share their differing points of view. The participants had to be responsible for their assigned work, in order to finish their tasks by the deadline. Johnson and Johnson (1990) contend that CL emphasizes individual responsibility, which is an important component of CL. Panitz (2002) indicates that the approach of CL encourages students to be responsible for their learning not only in class but also when working in groups outside class. Whether students have dependent or independent learning styles, once working in CL, they have to take responsibility and complete their own work.

## 3. Tutoring role

In CL group members may play a tutoring role to make CL more effective. Some participants (8 out of 30) said that they had acted as tutors for those who were falling behind during the process of CL. Higher-level students can explain the problems and tutor their group members who may not understand the content (Hooper & Hannafin, 1988; Swing & Peterson, 1982). Lower-level students can benefit by modeling higher-level students and by working on the process of explanation (Hooper & Hannafin, 1988; Swing & Peterson, 1982).

Higher-level students can benefit from explaining this learning process. One student responded: "I can get feedback from my peer groups in revising my written work; thus, my writing can improve." They discussed their learning materials and problems. Some low-level students could benefit from group members who had more ability to interpret things. Therefore, in CL some participants may act as tutors who can help other group members. As Edwards (2012) suggests, different approaches to pedagogies, such as tutoring, can be also used in class. Teachers can also get involved with student groups when conflicts arise.



## E. Suggestions for the use of CL

Many studies show that students needed guidance for CL. Peele (2012) stated that students need teachers to become involved in order to hold students responsible and make the work more smoothly with their roles. The following are suggestions for the use of CL.

### 1. Evaluation technique

Several suggestions are made for evaluation in CL. Students can evaluate their group members as well as themselves. CL offers other forms of assessment (Rosenshine & Stevens, 1986) including group observation (Panitz, 1999), self-evaluation (Angelo and Cross, 1993) and personal writing assessment for individuals (Angelo and Cross, 1993). The assessment techniques can offer extra advantages such as giving credits, different kinds of rewards and grades for the process of involvement.

A few participants (7 out of 30) suggested offering rewards such as giving students credits or presents. For CL evaluation, activities can be varied. They can draw attention to specific questions and have discussions. Teachers can evaluate how each group interacts with each other and how the evaluation process can be adapted to the different teaching methods used in CL.

### 2. Leader in charge of the group work

Training students in problem solving is an important component of cooperative learning training (Aronson 1978; Slavin, 1989). Eight interviewees said that choosing one leader in each group was necessary. They thought that without a leader, the group members would have too many opinions. A few participants (8 out of 30) said that the group members sometimes had different ideas and that it was difficult to reach group decisions. In particular, they have a hard time making decisions when various conflicts arise. Having a leader in charge of the problems can make CL work more efficiently. Thus, a leadership may provide important support for the ideals of CL.



### 3. Time control

Time management is an important element in making CL work smoothly. Three interviewees said if it took too much time working in CL, they would become bored. They might digress from the topic and chat in groups. The participants thought that assigning proper time was necessary for group discussion. Teachers thus must manage the time well and check on the students' learning progress.

### 4. Varied activities

In CL, different activities can be provided, including problem-solving activities and games, which can change personal competition to a group cooperation. The lecture can be a mix of group activities. Several researchers (Weinstein & Goodman, 1980; Williams, 1992; Johnson & Johnson, 1990) contend that when initiating collaborative work, offering activities to promote a cooperative environment is required. This can allow students to know each other from different perspectives. One interviewee said: "I'd like to have a field trip. It would be a new learning experience. Another participant said: "I would like to make small films through CL. It would be a lot of fun to do it on line and everyone can watch it." These kinds of activities would be challenging learning experiences.

### 5. Technology aid

Technology can be a very useful medium for the implementation of CL. Computers, are excellent tools for learning; therefore, effective application should be carefully considered. Most interviewees (25 out of 30) thought that they could share their work with the rest of the class through the use of technology. However, a few interviewees (6 out of 30) preferred to discuss topics in class. One participant said: "I think talking face to face is better than sending an e-mail." A few participants preferred to have face to face conversation because they thought personal interaction could clarify things more easily.

Though computer technology can be used for efficient socially based learning (Edwards, 2012), students may be distracted from the surrounding environment. A





few students might use computers for other purposes instead of as learning aids. One participant said: “I was distracted from the outside environment and played games instead.” With the help of computer technology, students are able to interact with each other in many ways, from email to social networks, which can facilitate discussion and facilitate learning. Students can sometimes become inspired through the exchange of ideas and help each other to solve problems. However, technology should be used as a supplemental aid for one of the class activities instead of substituting for the activity. If available, a few computers can be set up in class for the implementation of CL.

#### 6. Group member size, group composition, class size

Teachers should give attention to group member size and composition. The size of the group would be the consideration. Peele (2001) notes that group size and composition are factors that affect student work in CL. Rau and Heyl (1990) indicate that if the group is smaller, it will involve less variety and may lack different thinking styles. Hence, having students with a variety of abilities can help when making decisions in groups. Most interviewees (22 out of 30) suggested that four to five members in the group would be the ideal number of members for CL. If one group did not work well, they could always make a change.

Grouping needs better management to enable learners to feel at ease when working with other group members (Laing, 2010). In groups, the level of the students can be mixed with higher and lower levels. In addition, some participants preferred to choose their own partners. Three participants said that if there were unfamiliar students in groups, they felt too embarrassed to talk. Some interviewees (9 out of 30) said that working with familiar people was better because they would not feel embarrassed and it would be more effective. But some participants (8 out of 30) said that if they were grouped with friends, they would chat, which may disrupt the class. In this case, group composition should be randomly mixed since they may get to know each other through this learning process. The key point is that they need to share their work through cooperative learning.



Concerning class size, large classes would be an obstacle to CL as smaller classes are generally preferred. Most of the interviewees (25 out of 30) felt that in a small class teachers have more opportunities to interact with students. Small classes are an important element in making CL work better because students can have more opportunity to talk. Some participants (6 out of 30) thought that the class sizes of 20 would be preferable.

#### 7. Financial support

Panitz (1999) strongly suggested that financial support be provided. Because funding is necessary to support small class sizes, financial support is an important factor in CL. If schools can offer financial support, teachers can make CL work more effectively. School support may include financing, and equipment such as computers, which can be offered for the implementation of class activities.

### Conclusion

The study highlighted the positive aspects of cooperative learning. Overall, the study's participants, sophomores taking required English courses, showed a positive attitude towards the use of CL. They felt that in order to implement CL smoothly, each group member must play an active role, and that being responsible was essential to making CL work more effectively. The participants usually used learning strategies including negotiation, communication, listening, and interpretation. In CL the participants played a variety of roles, including active, responsible, and tutorial, which had an impact on the process of CL. Collaborative learning provides students with opportunities for interaction, to enable students to express their ideas and share their work. CL can foster different types of learning experiences in a nurturing atmosphere that promotes student interest.

Further research can explore how different variables such as different levels of students working in CL might generate different learning outcomes for the process



of learning. Furthermore, researchers may also explore how the CL learning sequence is accomplished in groups.

### Implications for language teaching

Some teachers may not adopt this approach. They can be trained to become familiar with CL. Their teaching styles can be encouraged to make the change from the center of the class to its facilitator and consultant. In order to encourage more interaction, class lectures can be mixed with CL, which can create social based learning and build interpersonal relationships.

CL can create a supportive learning environment. In CL, students must be responsible for their own learning progress. For independent learning styles, they are encouraged to use problem-solving skills in groups while working together to accomplish a specific task. As some researchers note (Gillies & Boyle, 2010; Hassanien, 2007; Johnson & Johnson, 1999) in group work, teachers need to make “preinstructional decisions,” to teach the social skills and to supervise and evaluate groups. Teachers also need to become involved when necessary in order to make CL run more smoothly.

Creating meaningful experiences is important to make student learning related to their social world. Since learning is a process of discovery and involves human discourse, CL can be a good teaching strategy in student training. Students can develop interpersonal skills that will help them do well when working with their peers. Cooperative learning is thus an ideal approach to make teaching more challenging since students can learn from each other and grow together through cooperative learning.



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### **Sample questionnaire items**

1. CL can offer me opportunities to learn.
2. CL can help me better understand learning materials.
3. CL can help me inspire my thinking.
4. CL can offer me more chances to express ideas.
5. CL can help me reduce anxiety.
6. CL can help me overcome shyness.
7. CL can help me build social relationships
8. CL can help me actively participate in learning and discussion.
9. CL can help me gain confidence.
10. CL can help my listening skills.
11. CL can help me improve my communication skills.
12. CL can help me gain more information and share different opinions.

### **Sample interview questions**

1. What are the learning strategies that you used in CL?
2. What roles did you play in CL?
3. What difficulties did you encounter in CL? What were the problems?
4. Do you have any suggestions for the use of CL?
5. Do you like to use the computer as an aid for CL and why?
6. Do you have any opinions about CL?



### Questionnaire item scores

Table 1. CL can offer me more opportunities to learn.

Responses	Frequency	Percentage
strongly agree	51	32.3%
agree	92	58.2%
no comment	12	7.6%
disagree	2	1.3%
strongly disagree	1	0.6%
Total	158	100%

Table 2. CL can help me reduce anxiety

Responses	Frequency	Percentage
strongly agree	43	27.2%
agree	65	41.1%
no comment	45	28.5%
disagree	3	1.9%
strongly disagree	2	1.3%
Total	158	100%

Table 3. CL can help me build social relationships

Responses	Frequency	Percentage
strongly agree	55	34.8%
agree	88	55.7%
no comment	13	8.2%
disagree	1	0.6%
strongly disagree	1	0.6%
Total	158	100%





Table 4. CL can help my listening skills.

<b>Responses</b>	<b>Frequency</b>	<b>Percentage</b>
strongly agree	48	30.4%
agree	86	54.4%
no comment	19	12%
disagree	3	1.9%
strongly disagree	2	1.3%
Total	158	100%

Table 5. CL can help me improve my communication skills

<b>Responses</b>	<b>Frequency</b>	<b>Percentage</b>
strongly agree	51	32.3%
agree	79	50%
no comment	25	15.8%
disagree	1	0.6%
strongly disagree	2	1.3%
Total	158	100%

Table 6. CL can offer me more information and different opinions.

<b>Responses</b>	<b>Frequency</b>	<b>Percentage</b>
strongly agree	49	31%
agree	99	62.7%
no comment	8	5.1%
disagree	1	0.6%
strongly disagree	1	0.6%
Total	158	100%

