The Application and Practice of the Cooperative Learning Method in the University Teaching

Yulong Tu[*]

School of Social and Public Administration, Lingnan Normal University, Zhanjiang, Guangdong, China

Abstract		Review Article

In the cooperative learning method, students have stronger awareness of learning participation and higher initiative in learning compared with traditional teaching methods. Instructors need to give relevant guidance to students on how to carry out cooperative learning to ensure the effectiveness of cooperative learning method. This includes the cooperative learning method planning, group interaction skills development, periodic check and group effectiveness evaluation. The cooperative learning method can also be easily combined with other teaching methods.
Keywords: Cooperative Learning Method; Learning Group; Learning Effectiveness.

INTRODUCTION

Most of the teaching methods in universities in China are based on classroom teaching and students' listening to lectures, and the teaching evaluation is basically determined through academic assessment, which leads to students handle busily the examination and neglect the acquisition, experience and application of knowledge. Although some instructors get to know the importance of collaborative interaction between instructors and students, the efficiency of collaborative interaction between instructors and students is not too high. Instructors often ask students to answer questions leaving students a very short time to think about the problems. For lacking of in-depth thinking, students are not active in response to the instructor's questions. So students' understanding of knowledge is not deep enough [1].

In the cooperative learning method, the participation consciousness and learning initiative of students have been significantly improved by the interaction between instructors and students. At the same time the equal relationship will be brought into the classroom during the teaching process, the fun of learning will be felt in the mutual communication and learning and common growth. With the further deepening and expansion of knowledge, the ability in the process of students' practice and other comprehensive training has been raised from the logical thinking ability to knowledge innovation. In addition, the cooperative learning enables students to have a common learning goal, which can improve the morale and enthusiasm of team members [2]. The interaction between students in groups enables students to learn more, remember more, and be more satisfied with the instructor compared with other teaching methods.

The form of cooperative learning

Cooperative learning is a teaching strategy carried out in a group, in which members help each other to improve the learning effect, including cognitive and emotional aspects [3]. In traditional learning, students memorize and understand the contents of the course mainly by listening to the lecture and taking notes. However, listening to lecture and taking notes can only promote students' academic and intellectual development to a certain extent. In addition to listening and writing, students need to have more opportunities to participate in learning. Besides promoting the transfer of knowledge, instructors also need to help students improve their skills and abilities of higher-order thinking. If universities students have the responsibility of self-teaching or teaching others, and reflect on what they have done and learned in the learning process, they can break through the traditional limitations of attending lectures and taking notes, so that students can get more benefits from learning [4].

To achieve cooperative learning, three types of group learning are commonly used: informal learning groups, formal learning groups, and research groups [5].

The informal group is a temporary group formed to prepare for a task. For example, students can form an informal study group with several of classmates

to discuss and solve tasks or questions that the instructor has given them. No matter the size of the class, instructors can organize informal groups to check students' understanding of the teaching objectives at any time, so that the group students have the opportunity to discuss and use what they have learned, and students can have a deeper understanding of the course contents.

The formal group is set up to carry out a project on specific tasks that may last for several weeks or throughout the semester. Students work together until a task is completed or a project is evaluated or graded. For example, at the beginning of the semester, instructors can ask students to divide into groups as they wish for the entire semester.

A research group is a long-term group with stable members whose main responsibility is to provide support, encouragement and assistance among group members for the completion of course requirements and a specific task. For example, students have to take part in some competitions such as the Challenge Cup, which need to be prepared for several years before they can take part in the competition. When the research group members miss the training for the task, other members can help them catch up with the progress. If the contents of the research are more complex, the value of the research group will be greater.

Cooperative learning method planning
In order to make the cooperative learning method produce greater effect, instructors need to plan each stage of group learning, consider how to organize students into groups, help students understand the goal of group tasks, let students understand the meaning of group members. How does the group member start? What does mean to complete the task? How do the groups discuss? Instructor need to provide continuous feedback, evaluate the group's learning results, and clearly explain to students how the study group will operate and how the students will be graded. Using a fixed set of criteria rather than comparing them to each other will promote the success of the study group. In the process, instructors need to help students develop interaction skills to succeed in the group [6].

1. Deciding how to group
1.1 To group students according to specific criteria. To make the group as diverse as possible, instructors may pair the same proportion of boys and girls into a group. Students who like to express themselves should be paired with those who are quiet, students who are pessimistic should be paired with those who are optimistic, and students who are ahead should be paired with those who are backward. Instructors often group students heterogeneously in order that students that are lower achieving are learning from higher achieving students, and higher achieving students support and solidify their learning by restating and reteaching to their lower group members [7].

Students may feel that the instructor is favoring certain students. Therefore, instructors need to explain the reasons for grouping, so that students can agree with the criteria of grouping.

1.2 To group randomly. If instructors don't know much about the students, instructors can also divide into students by their numbers or by random counting. Instructors can also randomly group the students in a class by arranging. For example there are two parallel lines of students in order of height if the number of male and female is approximately equal. The two teams are then paired, one male and one female, and if the numbers are different, they can be combined in a one-to-two or multiple way. To combine the numbers "1, 2, 3" into a group of N. The potential problem with random grouping is an imbalance in skills and diversity among the students in the group [8].

1.3 To let students choose their teammates. Students' spontaneous selection of group members is likely to work best when students know each other. Some studies have shown that voluntary groups are the most cohesive, which can lead to better performance and better interpersonal conflict management within groups, but voluntary groups are often based on close relationships, such as friends and roommates. This may make some shy or less intimate group students feel uncomfortable or forgotten. If students are asked to choose their own group, it is important to remind them that a greater diversity of members can make for a stronger group, because the diversity also means a greater diversity of perspectives and skills. The drawback of self-selecting group is "group thinking", which may lead to insufficient research on group tasks or the abandonment of consideration of other problem-solving possibilities in order to maintain group solidarity [9].

Taking the above three groups into account, the ideal grouping situation should be that all students have equal opportunities to attend and feel that they are part of the group. In order to reduce the number of students who feel isolated because they are different from others, instructors need to make some extra effort [10]. Students with different traits or skills can be selected for the composition of the group members. Research shows that groups made up of different types of problem solvers tend to outperform groups made up entirely of highly skilled problem solvers.

For team Size, in general, four or five members per group are the best. If the group is too large, students are less likely to participate. Groups of four can do some two-person work, and groups of five can prevent a tie vote. Students with lower skills tend to do better in small groups, which can be used if only for short assignments.

2 To design group task
2.1 To design group tasks that requires interdependence. Interdependence is a powerful

motivator to learn. When students understand that they are going to "win or lose" with their group members, each group member can voluntarily cooperate with the other group members. Because when the group fails, everyone fails. Only by contributing to the team can you contribute to the team's success [11]. In this process, the interdependent relationship among group members is promoted. Instructors should also work out ways to encourage students to divide their work and make some tasks that force students to reach consensus, such as arranging some tasks that are inseparable from the curriculum goals. Instructors assign tasks that require analysis of complex problems that rely on judgment and decision making skills. For example, each group prepares a report and randomly selects one group to present solution. Then the class compares and discusses the method used by the group.

2.2 To design tasks that match students' skills, interests, and abilities. For the study task, the instructor can arrange the study task from the easy to the hard. That is relatively easy tasks can be arranged at the beginning of the semester, and the difficulty can be increased over time. For example, when teaching research methods, instructors first let students distinguish between different research designs and methods, and then let groups design their own research. At the end of the semester, each group needs to prepare a research design, which should be reviewed and evaluated by the class.

2.3 To design tasks that allows everyone to contribute equally. The instructor asks the group to write a paper on management research methods. Each member of the group is responsible for researching a project, and all members collaborate to make their own contributions to the final report. Instructor can ask each group to outline the group tasks in the form of a Mind Map, radiating out the main categories, which then branch out into less important categories [12]. Students use diagrams, images and colors to decide on subtopics, goals, and how topics are to be studied. They review, analyze, and draw conclusions from information they have gathered.

3. To develop group interaction skills
Students may face many problems at the beginning of the group. For example, one student is particularly dominant, others cannot participate effectively in the group discussion, or some members of the group do not contribute to the whole group, but just enjoy the benefits. This requires instructors to guide students to give students the skills of active and tolerant listening. Such as how to help each other master the learning contents, how to offer constructive criticism, and how to deal with possible group conflicts and disagreements. When instructors and students discuss the coping skills of these problems, instructors emphasize which skills are important in the cooperative learning method. Research shows that the training of

interpersonal skills is the key to the success of group cooperative learning.

In order to contribute to a well-functioning and productive team, the first task allows each team to provide group answers to questions, such as the following: how can you help your team have these conditions for success, and how can your team deal with situations if team members don't attend team meetings, don't finish assignments on time, or don't communicate well? What strengths can each member help the group coordinate and be effective? By letting the group members think about these questions, the instructor can help them to create a better and more efficient group when they are doing group work.

Students can understand and retain information more effectively when they take part in questioning, discussing, and summarizing information while in cooperative group settings [13]. Cooperative learning allows students to develop positive attitudes toward instruction and enhance group interaction skills. The cooperative learning activities that can require higher level thinking in which group members have to discuss their ideas can benefit all levels of students as they interact with each other. The cooperative learning provides students with opportunities to interact with friends and others who may become their friends.

If the collaborative group is not progressing as desired, and the members ask for the group to be broken up, the instructor should not break up the group. Because adding members of the problem group to other groups can disrupt the group's work and learning process, and the group can't learn how to deal with inefficient interactions. Instructors should give these problem groups some extra support, or promise at the beginning of the semester that there will be rotation between groups during the semester so that students know that they will have the opportunity to work with another group of students, and students will feel less pressure for the desired cooperation.

4. Periodically check group work
If a student disrupts a study group, complains or is hostile to the group, the instructor should try to identify the cause of the resistance and instruct student groups on how they can work to achieve the objectives of the course. Let students discuss a sample of group tasks and explain why groups are more likely than individuals to find more and better solution to problems. Continue to encourage students to replace face-to-face meetings with audio and video conferencing, online bulletin boards and chat rooms, and email. Continue to coach group work and make sure the whole group is clear about what each team member needs to do.

The team must know who needs more help in order to get the job done, and the members should know

that they can't just sit back and let others do all the work. Instructors have to periodically check group work and monitor each group's progress.

5. To evaluate group effectiveness

Instructors may consider developing group tests to represent the performance of group members. Students often score higher on group tests than on individual tests, so students are also willing to take cooperative academic performance tests. Therefore, instructors should assign groups to study at the beginning of the semester so that students can develop their ability to study in groups. First let the students no more than 5 work independently and hand in their own answers, then gather the group members to discuss, next submit the homework after reaching a consensus. The final score of the group will be the final score of each member.

However, some studies have shown that post-course mutual evaluation weakens team cohesion and reduces team effectiveness [14]. This may be because students tolerate bad behavior rather than confront it head-on, and they know they can fight fire with fire on the evaluation form. In order to reduce this result, instructors should emphasize students to have honest discussions about internal dynamics. For example, the following questions can be discussed: In what ways have you helped or facilitated the group's progress? What have you learned from these experiences that are relevant to the course contents? What have you learned from these experiences about how to interact with others, and how can you apply what you have learned to new situations, future goals, or your study habits? What was the most meaningful, worst, and biggest challenge that arose?

Combination with other teaching methods

The group learning method takes the group as the unit to learn, and can flexibly combine with other teaching methods like role plays, panels, simulations, or other methods. Such as the combination with the situation teaching method.

Situation teaching method puts students in a specific situation by creating a specific situation to form a psychological environment, so that students can have empathy effect and get emotions that they can't get in other circumstances. When situation teaching mode is applied to International Human Resource Management teaching, the internationalization factors in international human resources can be excavated. For example, each group can mobilize students' learning subjectivity and initiative, and cause students' active knowledge transfer, coding and memory. Under the construction scenario of international human resource management, students' experience of international situation is quite limited, and the cultural differences in international situation are still strange to students, but imagination can greatly broaden the situation.

Situation teaching creates real or virtual teaching situations through role-playing, drama performance, and image simulation. This link is the key to the combination of cooperative learning method and situation teaching method, and is the basis and condition for the mutual integration of instructors' teaching and students' learning. In the combination of situation teaching and group cooperation, emotion arousing and observation are carried out simultaneously. Instructors use situations to stimulate students' emotions and develop students' positive emotions. The cooperative learning leads students to explore problems, and transform emotion timely. Emotional transformation is to transform students' learning from situation experience to intelligent development, and its transformation method is application.

There are three levels of intelligence development: the first is to master knowledge; the second is the use of knowledge; and the third is to create knowledge [15]. In the course of International Human Resource Management, the instructor comprehensively considers the knowledge points of the course and sets up scenarios. The group according to the task is different, the student under the instructor's guidance, has the purpose, the multiple perspective observation. By using the role effect of group students, the students are driven by the role consciousness from "playing the role" to "entering the role", and from "passive role" to "active role" in teaching. The advantages of the cooperative learning method and situation teaching method are brought into play. Students can flexibly apply the knowledge they have learned in the new situation, and apply the knowledge to the new situation and make innovations, so as to realize the leap of students' intelligence development. This improves students' ability to think and analyze, thus the overall effectiveness of teaching. The overview of implementation cooperative learning method is seen from Fig 1.

Fig-1: Overview of the implementation the cooperative learning method

CONCLUSION

Cooperative learning method is an effective teaching strategy in which can help students eliminate frustration, promote their thirst for knowledge, and stimulate their learning motivation. Implementing cooperative learning in the classroom is difficult. Instructors need take much time to plan and design cooperative learning. However, cooperative learning provides an avenue for teachers to adopt multi-intelligence methodologies in a social setting. At the same time, cooperative learning method is easy to be combined with other teaching methods. It can be said that the cooperative learning method has played a good role in the course teaching, and make the teaching process become a process of promoting students to learn to think through practice and continuous innovation, which is also the process of promoting the continuous development of students' learning ability and innovative thinking. The practice shows that the cooperative learning method not only plays a significant role in improving the teaching efficiency and quality, but also plays a great role in stimulating the enthusiasm and initiative of students.

REFERENCES

1. Abrami P, Chambers B, Poulsen C, De Simone C, d'Apollonia S and Howden J. Classroom connections: Understanding and using cooperative learning. Toronton, ON: Harcourt-Brace; 1995.
2. Johnson D and Johnson R. What makes cooperative learning work? Tokyo: Japan Association for Language Teaching; 1999.
3. Johnson D, Johnson R and Holubec E. Cooperative learning. The Cooperative Link. 2009; 24(1): 1-4.
4. Abrami P, Poulsen C and Chambers B. Teacher motivation to implement an educational Innovation: Factors differentiating users and non-users of cooperative learning. Educational Psychology. 2004; 24(2): 201-216.
5. Johnson D, Johnson R, Stanne M and Garibaldi A. Impact of group processing on achievement in cooperative groups. Journal of Social Psychology. 1990; 130(4), 507-516.
6. Ledford C and Warren L. Cooperative learning: Perceptions of preservice teachers. Journal of Instructional Psychology. 1997; 24(2): 105-107.
7. Patrick H, Bangel N Jeon K and Townsend M. Reconsidering the issue of cooperative learning with gifted students. Journal for the Education of the Gifted. 2005; 29(1): 90-108.
8. Tu YL. The Research and Practice Exploration of the Effect of Cooperative Learning Method in Accounting Bilingual Teaching,Scholars Journal of Economics, Business and Management. 2019; (6):323-328.
9. Wang SJ, and Tu YL. Involution Research and Organizational Culture Construction:A Business Anthropological Case Study in China.The Anthropologist. 2016; 24(2): 526-533.
10. Tarim K and Aritut P. Teaching addition and subtractions skills to preschool children with cooperative learning method. Eurasian Journal of Educational Research. 2004; 5(17): 221-236.
11. Vaughn S. Collaborative strategic reading as a means to enhance peer-mediated Instruction for reading comprehension and contents-area learning. Remedial Special Education. 2001; 22(2): 66-75.
12. Zakaria E and Iksan Z. Promoting cooperative learning in science and Mathematics education: A malaysian perspective. Eurasia Journal of Mathematics, Science & Technology Education. 2007;3(1): 35-39.
13. Yelon SL and Ford JK. Pursuing a multidimensional view of transfer. Performance Improvement Quarterly. 1999; 12(3): 58–78.
14. Slavin R. Research on cooperative learning and achievement: What we know, what we want to know. Contemporary Education Psychology. 1996; 21(4), 43-69.
15. Wang SJ, TU YL, LIU SS. The evolution of state-owned enterprises in South China: The choice of property right system perspective, The Anthropologist. 2014, 18(1): 103-111.