

Comparative Study of Group Collaboration in Higher Education in China and the United States

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Abstract. With the progress of the society, education has received more and more attention. From compulsory education to higher education, educators have been continually exploring more suitable and better pedagogy. In this situation, the application of group collaboration in teaching and learning has been emphasized. In this article, the author mainly compares the current situation of group collaboration in two educational backgrounds: China and the United States. The advantages and disadvantages are analyzed and suggestions for improvement are given. According to the comparison, it can be clearly seen that in the U.S., the educational method of group cooperation is relatively more sophisticated, more commonly used, and more favorably received. In China, the success of group work has been impeded by cultural backgrounds, social environments, teachers and students. These factors have resulted in negative attitudes towards the learning method of group collaboration. Nevertheless, Chinese students remain optimistic about the future of this method. In order to expose students to a wider variety of learning styles, and in order to maximize the value of group work, Chinese educators need to devote more time and energy to changing the status of education and improving the quality of teachers.

Keywords: Collaboration; Cooperation; Higher education; China; The United States.

1. Introduction

With the development of society, people's material life has been improved to a great extent, thus beginning to pay attention to the enrichment of spiritual life. In such a background, the development of education has received more and more focus. People's pursuit of education has also improved. Instead of just being satisfied with the basic education stage such as compulsory education, they began to pursue higher education. Therefore, educators began to research education in different countries, hoping to find more and better teaching methods. In higher education, the teaching method of group work began to receive more and more interest and application. By allowing students to work together in small groups to accomplish tasks and projects, group work offers many benefits to promote interaction and communication among students and to develop some social skills that can benefit students when they enter the workplace.

The educational form of group collaboration is very widely utilized in the United States. It is worth mentioning that there are many ways in which collaboration can be used in teaching and learning. Under the umbrella of collaboration, cooperative learning is included [1]. Specifically, Johnson, Johnson, and Holubec's theory suggest formal cooperative learning groups, informal cooperative learning groups, and cooperative base groups [2]. Thus, it can be seen that the pedagogy of group learning has a rich variety of forms that can be well integrated into the learning of different disciplines. By defending their positions, reconstructing ideas, listening to other points of view, and articulating their own, students gain a more complete understanding as a group than as individuals.

Based on the numerous benefits of the collaborative teaching method, China has also begun to incorporate this method into its university curriculum. However, the use of collaborative group work in the Chinese educational system has faced obstacles. Although educators have used group work in higher education in an attempt to increase the diversity of student learning as well as improve learning efficiency, the results have been less than satisfactory. Chinese students in compulsory education are



primarily independent learners-developing their skills and comprehension through reading and writing. Therefore, they need to improve their communication and negotiation skills. In cooperation, Chinese students may lack trust in other group members and may be reluctant or unable to cooperate. This in turn can lead to overloading one person in a group task. Not only does it not improve learning efficiency, but also increases students' mental pressure and discourages their enthusiasm for learning. However, when students step into society and enter the working environment, there are many tasks that cannot be done independently by one person and require cooperation. Therefore, it is very important and urgent to find a suitable group collaborative teaching method.

This thesis is a comparative study of group collaboration in higher education in China and the United States. The thesis uses the comparative analysis method to compare the use of collaboration in Chinese and American education. It analyzes the advantages and disadvantages of using group work in the educational context of these two countries and gives recommendations.

2. Group Collaboration in China

2.1. Current Situation

Group collaborative learning appeared early in Chinese history, but it was not well sustained. Around 1980, the western concept of cooperative learning was introduced to China, and it was widely spread after continuous research and attempts [3]. Collaboration can be in the classroom or outside the classroom. The forms of group cooperation in the classroom include presentations, tests after group research, and problem-solving. This form is mainly teacher-arranged and student-participated. The degree of student autonomy is weak. Group work outside the classroom is more open and students have more choices. Examples include cultural exchange activities, teaching, and clubs [4].

With the progress of technology, more and more high-tech products are utilized in education to become tools that can be utilized by students and teachers. At the same time, integrating technology into the classroom also adds diversity like the smart classroom [5]. In the smart classroom, when assigned a reading task, students form groups to read and discuss, and then consolidate their ideas into a group project that is uploaded to the teacher, who presents it on the screen. This type of group cooperative reading increases the effectiveness of student learning. The group discussion afterward also helps students to memorize the key points in the reading. However, group cooperation is not devoid of drawbacks. Sometimes, instead of promoting students' learning, cooperative learning results in the phenomenon of free riding, which allows some students to enjoy the fruits of others' labor without making any effort. Therefore, the formulation of rules is important, such as the scientific way of group formation and appropriate evaluation criteria [6].

There has been a lot of research on the impact of cooperative learning within the classroom for college students. Cooperative learning within the classroom is characterized by short duration, usually one task for one lesson, and well-organized, thoroughly supervised, and participated in by the teacher. Overall it is still teacher-dominated. Certainly, student-dominated group cooperation also exists, but it is just unsatisfactory. In He Huan's interviews with Chinese graduate students about the current state of collaboration, the disadvantages of collaboration outweighed the advantages [3].

2.2. Reasons

2.2.1. The influence of traditional Chinese culture

Traditional Chinese culture advocates that people prioritize harmony and concord. Therefore, in the process of group cooperation, students will not raise doubts and keep silent because they want to protect the relationship with the teacher and classmates. In addition, Chinese people also attach great importance to what others think of them. Sometimes, in order to avoid making others feel that they are unfriendly, students often choose to be silent or even compromise when they encounter conflicts with group members.

2.2.2. Students do not find the value of cooperation

Students have a lot of bad memories from their past experiences with group cooperation. For example, group members did not finish their work or the communication process was unpleasant. These experiences do not make students feel the role of cooperation, but make them lose confidence and interest in group work. In addition, due to students' limited mastery of some knowledge, they may only focus on their existing knowledge when conducting group tasks and discussions, lacking in depth and extended thinking. If, at this point, the group members just concur without making critical suggestions, then they are likely to feel no value in group work.

2.2.3. Students preferred to choose acquaintances when choosing collaborators.

Although choosing known people to work with can facilitate communication in some ways, in fact, it is not conducive to dealing with differences of opinion. If there is a difference of opinion in group work, students may choose to compromise because the others are their friends, which is not conducive to thinking about the problem from multiple perspectives. However, if they are outspoken in expressing their opposing views, it is likely to intensify the conflict and even cause the group to become unable to keep working together. In addition, if students keep choosing acquaintances to form a team, their thoughts can easily be narrowed down [7]. It is also unfriendly to some students who are not good at socializing. Whether because they may be left alone for lack of friends, or because they may not be able to provide value to group work since they are afraid to talk.

2.2.4. Low attitude of group members toward cooperation

Attitude is very important for group work because the group members can influence each other. When one person shows a negative attitude towards the task of working in a group, the state of the other group members will also be affected, because no one wants to be the only worker. In addition, if one member of the group delays the progress of the group because of inattention, it is likely that the other members will do the same in subsequent collaborations, thus affecting the progress of the whole task.

2.2.5. Lack of leaders

Group work requires leaders, whether they are in a position or not; one person or many. A leader can lead the group in rationalizing tasks, setting deadlines, and providing help when the group is in need. The lack of leaders affects the effectiveness of collaboration. If everyone in a group is a leader, able to assign tasks and schedule a timeline, the group is likely to be successful. If there is one leader in a group, that person can also assign tasks and time to each person, and the other group members just need to do their own jobs. However, if there is a lack of a leader, then it is likely that people will be in conflict when assigning tasks. For example, two people want to work on the same part and no one wants to be in charge of the other part. Time may be wasted on task allocation. In addition, without a leader to supervise, some people may lose motivation thus delaying the team process.

2.2.6. The group size distribution is not based on the need for numbers

The determination of the size of the group requires careful consideration. Excessive numbers increase stress on students because they need more communication and cooperation. Groups of 3-4 people are the most efficient because tasks can be accomplished and each person is irreplaceable, increasing the student's sense of responsibility.

2.2.7. The group did not concentrate enough

In addition to completing their own tasks, a certain amount of attention is likewise required in the presentation of each other group's task. The group did not concentrate enough while listening to the presentations of other groups, and the learning was limited. When another group is presenting, the group members following it may be preparing their own part of the presentation and not listening carefully to what the other group is presenting.

2.2.8. Problems with teachers

Many times the failure of group work is not only related to the students but also to the teacher. For example, students do not understand the task well enough because the teacher does not make the content clear when assigning group tasks, which affects the work afterward. What's more, instructors can't assign tasks wisely; unclear expressions; lack of guidance and supervision; and not enough emphasis on collaborative tasks can also result in a failure of group work.

3. Group Collaboration in the United States

3.1. Application of Team-Based Learning (TBL)

In the United States, the use of small-group collaborative teaching methods is prevalent. In particular, TBL was discovered by Judy Currey [8]. This form of learning can be widely used in different disciplines, such as psychology, chemistry, biology, and so on.

Certainly, TBL has a complete system (see Figure 1). First, educators need to introduce TBL to their students, describing in detail what it is, how to use it, and why to use it. Then, teachers can simulate the RAP (Readiness Assurance Test) in the classroom, reflecting the importance of collaboration with clear data results to make students feel confident enough about this form of learning. After this, students participate in an application activity that incorporates the course material.



Fig. 1 Image adapted from Prototypical Team-Based Learning course structure [8]

Teams need to be formed at the beginning of the activity. Since in the United States, most university students can adjust their classes freely during the first week of school, forming teams will usually take place after the list of people has stabilized. At the very beginning, the teacher will usually try to set the number of people in the team as large as possible, because after that the change of the number will mostly be a decrease. Once the list of team members has been finalized, teams will begin to assign and complete tasks independently. Of course, lessons are still needed because when groups are working independently on tasks, students will encounter obstacles that sometimes cannot be solved on their own. In this case, the teacher will need to explain the content and solve students' confusions. This type of lesson is not teacher-centered and still requires students' participation and discussion. Next, students will move on to complete group work and present. At the end of the presentation, the teacher will need to give an evaluation, which serves to help students summarize what they have learned and tell them how to apply this knowledge in the future. Encouragement is also necessary to help boost students' confidence as well as motivation of learning. It is important to note that application activity can be used more than once in a lesson and can be adapted and determined based on the length of the lesson and students' accomplishment.

3.2. Other researches

In 2016 Scager et al.'s study, they selected nine groups of second- and third-year students from five different undergraduate life science courses to interview [9]. Both in-class and out-of-class collaborations were included in these five courses. The research found two broad factors that positively influenced the effectiveness of collaboration: design and process. Among the design factors for courses and/or assignments were student autonomy, task characteristics, instructor expectations, and group size. Among the process factors, the way students interacted and organized their work incorporated team and task regulation, interdependence, facilitative interaction, and mutual support as well as motivation. Interestingly, through the interviews, students felt that the ability to work together smoothly was related to the fact that they knew each other, as it made them more outspoken

and facilitated communication. Through the interviews, it was found that students were more aware of the benefits and importance of group cooperation when they were faced with heavy workloads and difficult tasks. In addition, students focused more on the inherent value of the product of the task rather than just the reward. Even if these tasks do not relate to grades, students are willing to spend time and effort to discuss and analyze it.

In Welton et al.'s study for collaborative writing, they mentioned the importance of allowing everyone to create as equals (non-hierarchical approach) [10]. In such equal conditions of creation, everyone's perspective is respected at maximum. As a result, everyone in the group has a sense of belonging and responsibility which motivates them more to create. Group members can support each other, and there is freedom for all to express their views without fear of rejection or ridicule. In this way, group work can be more effective. Such as exposure to a greater variety of writing styles and improved critical thinking, which has six dimensions: inquisitiveness, analyticity, open-mindedness, self-confidence, systematicity, and truth-seeking [11].

3.3. Evaluation Standards

When mentioning group cooperation, it is necessary to mention its evaluation standards. In fact, group work is being assessed for contribution, knowledge, and product [12]. The meaning of knowledge and product is obvious, but contribution can be subdivided into group interaction, intellectual, and workload. Teachers need to take into account whether students actively participate in group work, actively participate in discussions, and give suggestions when assessing contributions. The method of assessment can be approached by dividing it into individual assessment and group assessment. In the individual stage of assessment, teachers can let students give feedback on their own performance, which can then be completed by combining the teacher's own records of students' performance as well as feedback from other group members. Of course, these assessment methods are not set in stone. The proportion given to different aspects of the assessment process may also vary.

4. Comparison

Table 1. Pros and cons of collaboration in China and the United States

Country	China	United States
Pros	High-effectiveness, Promote the ability of expression, Social skills	Improve students' responsibility, Supportiveness, Diversity, Increase desire for knowledge, Critical thinking (6 dimensions) [11]: 1. Inquisitiveness 2. Analyticity 3. Open-mindedness 4. Self-confidence 5. Systematicity 6. Truth-seeking
Cons	Free riding, Traditional thoughts, Teacher's responsibilities: 1. Class design 2. Attitude 3. Guidance & Supervision in process	Requirement for: Teacher quality, Students' autonomy, Sufficient trust in others

The comparison from the Table 1 shows that collaboration has more negative feedback in China and more positive feedback in the United States.

4.1. Cultural Background

In the background of Chinese culture, the education that students are exposed to from childhood to adulthood is teacher-centered. Teachers teach and students learn without a lot of availability. On the other hand, Chinese culture requires students to treat teachers with the same respect as their parents and avoid challenging teachers. On the contrary, American culture focuses on freedom and equality. Most American classrooms are student-centered, focusing on the difficulties students encounter in the learning process, helping students solve problems and developing the ability to learn independently. Under these two highly different cultural backgrounds, the application of cooperation in small groups also shows obvious differences. The comparison in Table 1 shows that in China, the benefits of group work are mainly seen in the improvement of collective cooperation and social skills. In contrast, the U.S. focuses on how to use group work as a bridge to promote individual competence.

4.2. Students' Attitude

Furthermore, due to the insufficient appropriateness of the previous use of collaboration in Chinese higher education classrooms, students have already generated a certain amount of negativity towards this way of learning. Whether it was because the teacher's grading of group work was unreasonable or the process of working together was unpleasant, students just regarded it as a task when faced with collaboration and did not treat it as a tool for their own learning. Instead, groups in American universities rely more on students' sense of responsibility, trust in-group members, and desire for knowledge. In the United States, this approach to teaching encourages students to explore their areas of interest and to learn from others.

5. Conclusion

According to the above comparisons, it can be seen that the United States has more experience in using group cooperation as a learning method and the feedback is positive. China is still in the stage of experimentation and improvement for group cooperation. More and more schools are beginning to pay attention to group cooperation as a learning approach and integrate it into the classroom. More and more students are being exposed to group cooperation and are experiencing the advantages and disadvantages of this method from their own experiences. Although Chinese undergraduate and graduate students do not have a favorable perception of their experiences with group work, they are optimistic about its development in the future. The group work learning method needs more practice and development in China, it requires a more complete system and rules. Teachers are not able to grasp the key when using this method and do not have a thorough understanding of it.

Therefore, in order to improve this situation, Chinese educators need not only to change students' attitudes towards cooperation and improve their autonomy and trust in others, but also to provide systematic training for teachers. For example, before the start of a lesson, instructors should have a basic idea of the structure and scope of the group work, as well as know the students' learning backgrounds such as their majors. Survey students' interests before the group is formed. Educators should be familiar with the technology tools that will be used in the course is also very important. Besides the preparation phase, educators need to keep in touch with the progress of each group during the collaborative process, and be able to identify and solve problems promptly. Most importantly, teachers need to increase their seriousness about group cooperation as a method of learning. Teachers' responsibilities should be clarified to ensure the quality of teaching.

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