Cooperative Learning in the Classroom

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Introduction

Cooperative Learning is a structured technique that allows students to learn from peers in groups and acquire important interpersonal skills like teamwork, contributing ideas, and reaching decisions (Jacobs, G. M., & Ward, C. S., 2000). Students are given a task and they work together to accomplish the task. Each individual has responsibilities to make some contributions to the team for the completion of the assignment. Therefore, the success of one group is dependent on the participation of all the members; this is called *positive interdependence* (Foundation coalition, 2004). Positive interdependence (PI) is the key element of cooperative learning because a group that shares common goals and works together is individually and collectively beneficial towards the success of the group.

Instructors can structure positive interdependence by covering the following (Marjan Laal, 2013; 分組合作學習教學手冊，2013):

(1)Positive Environmental Interdependence

The instructor arranges the environment that helps groups working together well; it contains seating arrangement and classroom management/ decorations. Learners of the same group are seated close enough so that they can easily hear each other and share resources.

(2)Positive Task Interdependence

The instructor creates the tasks that require common purposes, outcomes, and rewards within a group. Each member of the group is assigned different role and has a separate task; they have to work together toward the common goal.

(3)Positive Source Interdependence

Each member has specific resources (e.g., jigsaw task from each other in a positive network) that are needed for the group to succeed. Instructors provide specific resources/inputs to help learners clarify their interpretations or to challenge them.

The purpose of the study here was to explore the implementation, how instructors put positive interdependence in place, of cooperative learning with the three positive interdependences in American classes. In the following paragraphs, I would like to discuss about what I have observed and learned in those three sections and provide examples of positive interdependence.

I. Application of Positive Environmental Interdependence

Positive environmental interdependence means that students are close together so that they can easily hear each other and share resources. In addition, teachers are willing to build up positive cooperative learning surroundings and a supportive atmosphere.

1.The Positive Display Wall on Campus

When I stepped into Josiah Quincy Elementary School(JQES), I saw the mission of JQES and the school's expectations, different kinds of positive adjectives for children. "All children will learn because of what we do" means all students here learn to meet the high standards and achieve their best with the support of the faculties in JQES. Creating a positive learning environment on campus helps learners feel comfortable and engaged.

2.Seating Arrangement

Seating arrangement is one of the main parts in a teacher's plan for classroom management. Different classroom layouts were adopted for promoting discussions, and encouraging group activities. In the educational visiting, I saw flexible kinds of seating arrangements for keeping the class motivated and focused, and also for

students to work and communicate easily. For me, classroom seating arrangement is as important as the syllabus, so that's why I first put my focus on effective desk configuration that fits each instructor's teaching style, students, and even classroom space. Here, I learned many different methods for grouping students, but I found that giving the learners the ability/opportunity to express their "learning style (e.g., visual, kinesthetic, logical, and so forth)" is very important.

The Math Class at Sherwood Middle School

1.Clusters: Four to five desks are put together, and every desk faces another one. It is quite common when there is a lot of group learning and work.

The Reading Class at JQES

2.Semicircle: The instructor can have full control over learners, and learners can get direct instruction from the teacher and discuss with neighbor easily.

Self-Paced Learning Tools and Resources at Howell Township Public School

3. Traditional desk arrangement: For each student to do self-paced learning online, and the instructor walk around and give aids to the student in need.

Game-Based Response Teaching at Howell Township Public School

4.Pair: Two learners' desks are put together and spaced away from other pairs. Students can work together and independently for the assigned task.

Maker Spaces in the Media Center (Snap Circuits reassembling in groups) at Howell Township Public School

Simulation and Genius Hour (Science Learning Stations) at Howell Township Public School

5.Activity Zones/Learning Stations: Each table is given a number and an assigned task. Students do their individual work but they can also help each other accomplish the work

Take Ms. Chan's reading class at Josiah Quincy Elementary School as an example, the book they read in class is Encounter by Jane Yolen. During this unit, they have been working mainly in table groups which are organized by how students interact with each other. Students who have been known to talk with another student or friend during class time would sit apart from each other to prevent disruptions. Moreover, students who are level 1's in English proficiency will most likely sit next to a student who speaks their first language to help with any confusion if Ms. Chan is busy with other students. In addition to grouping students at table groups according to behavioral management in the classroom, each group will have a mix of levels ranging from low, medium, and high to allow students to get a range of opinions and understanding in group discussions.

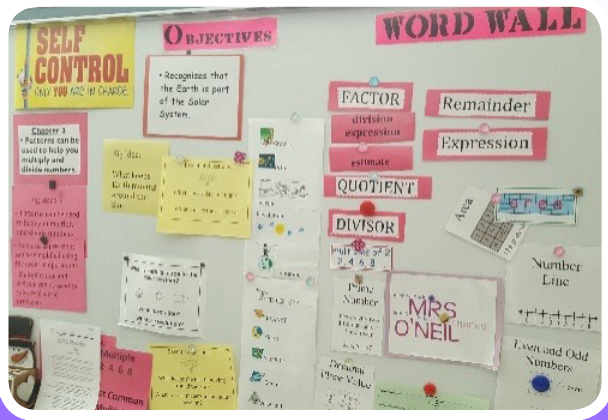
3.Cooperative Posters and Reminders

Cooperative learning posters around the classroom are a great display of latent learning; they help internalize cooperative skills while working with their peers in the classroom. They also help learners remember how to work together and build up the sense of community and belonging. In American classes, I saw various posters that were not only related to the subject the teacher taught but also the attitude that reminded students of how to be active learners. Most of the decorations in the class were inspirational posters, learners' work done during tasks, and anchor charts that instructors and learners created during the lesson.

International Baccalaureate Learners Traits: a broad range of human capacities that go beyond academic success.

Reading Posters: the strategies that learners can apply in reading, like how to get the gist, restatement, citation, and explanation.

Guided Reading Groups: the teacher assigned different tasks and adjusted group members according to their performance.



Word Wall: the math vocabulary about what learners acquired recently and objectives for each unit.

II.Application of Positive Task Interdependence

Positive task interdependence promotes a larger variety of engagement and teaching strategies in the classroom. Instead of always having the teacher stand in front of the class and lecture, students have the opportunity to teach themselves and others by getting the opportunity to practice critical thinking and problem solving strategies. Students will also have to practice finding out the reasons behind their own thinking, and how they came up with their answers when they explain or teach another peer how they arrived at a solution.

It can sometimes boost self-confidence by allowing students to become the educator and learn from each other, and highlighting the strengths of each student in different areas rather than having them dependent on the teacher all the time for answers. In Teacher Leung's (teaches reading class at JQES) opinion, this puts the responsibility of critical thinking into the hands of the students and forces them to think about what they should do instead of immediately raising their hands to ask the teacher at the moment they are confused.

Classroom Observation Notes(the main focus is on the cooperative learning and strategies):

1.The Implementation in a reading class(Instructed by Ms. Chan and Leung)

The class was doing a science project where students worked together to create a portfolio for a specific biome. Students were asked to work in groups of 2 or 3 after the students had chosen their top 3 biomes they wanted to research. Afterward the teacher grouped them according to their preferences. Student interactions (whether these students will be able to communicate well and their ability to understand the written material), and making sure each biome is covered by a group of students. The students had the freedom of choosing different formats for presentations that each member of the group participated.

Ms. Leung said, in a group, students were assigned with a task that is unique to their partners. Some students were looking up information, while others were typing

the information into their PowerPoint. Sometimes, students would be organized into groups based on their understanding of the topic for different projects. Students with greater understanding of the material would be placed in a mixed group of middle and higher scoring students so that when they work with a teacher they would be a group that requires less scaffolding. As to low achiever learners, they would be placed in a mixed group of middle and lower scoring students to receive more scaffolding during group instruction.

In the class, simpler strategies that the instructor adopted include Turn-and-Talk; students have 1 minute to share their thoughts with a person next to them before gathering together for a class discussion. This gave all students a chance to express their thoughts even if not everyone would get a chance in the whole group discussion and some time to think before contributing their answers to the class. It means that students require some processing time to formulate an answer to any question, and this 1 minute partner interaction gives students who usually require more time an opportunity to process what is being asked, and the time to formulate more meaningful and rich answers.

2.The Implementation in a Science Class (Instructed by Ms. Maura O'Neil)

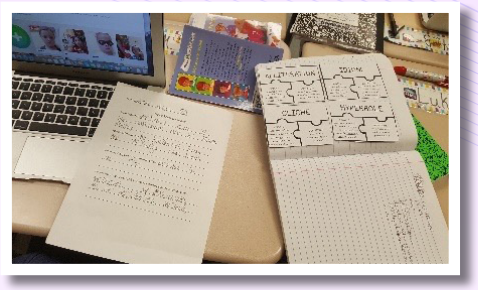
Ms. O'Neil paired one student that needed help with another student that could be independent. She spent time having students explain how to solve problems and also asking who, what, where, when and why rather than having the students give each other answers directly. When she called on anyone of the partners, she had the two students stand up. They had to help each other, explain their supporting evidence, and share the same responsibility for their answer. This partner routine took some time before the whole classroom discussion.

3.The Implementation in a Writing Class (Instructed by Mr. Kevin Donahue)

With cooperative learning, Mr. Donahue had groups of 3 or 4 students with a mix of ability levels. The reason was the higher skilled students could model the work for the lower students. This also assisted him in placing a strong reader in each group and giving the lower readers someone strong to work with. He thought that many of the higher skilled students needed to learn how to work with others. They had

academic skills, but lacked social skills. His groups were flexible depending on the topics and the subject matters. Sometimes he would group, for a short periods of time, students with the same ability levels for specific purposes like taking group notes and research groups.

4.The Implementation in a Writing Class: Video Enhanced Discussion Platform (Instructed by Mr. Young)



This was an introduction to Language Arts unit about mystery stories. The students were learning about the strategies (e.g., making predictions, creating timelines, finding suspects, and keeping track of important information.)

He told the students that something in the class was stolen and that they needed to collect clues and evidence about who may be a suspect. By using the website www.flipgrid.com, he created a "dashboard" that had questions for students to answer. The students were asked to make predictions about who the culprit may be after he had given them some clues. Instead of writing down the answer, students created a video. Much to my surprise, creating a video allowed some of the shy students dare to express their thoughts without the pressure of talking to a whole group. Later, the students were able to watch each other's videos, and they discussed how other peers had different predictions based on the evidence. Throughout the rest of the week, students would be given more clues which may change their original prediction.

In the class, cooperative learning had many benefits because it challenged students to think for themselves. The learners were exploring learning through active involvement. It was hands-on to use real life situations to explore solutions to a problem.

III.Application of Positive Resource Interdependence

In the section, I collect some of the useful online platforms or apps that American teachers apply in their courses. These are beneficial for learners to work on individually, or in task groups if needed. For students, the resources motivate them,

increase their creative ideas and confidence, and they can share thoughts through words or videos immediately in class. As for instructors, they use the online platform to add engaging content to the topics that learners are studying, to assign group projects to students, and to give students constructive feedback in time.

Schoology: instructors can post assignments, videos, completed work and links for the students to do their research.

Kahoot: a fun and interactive game platform that is perfect for review. The students can work individually or in pairs/groups.

TenMarks:a standards-based program to complement math curriculum and help teachers deliver personalized instruction

flipgrid: aK-12 resource thateducators post topics, videos, or links for learners, and they can respond to peers with video reflections.

Pinterest: a web and mobile application that mainly utilizes images, GIFs.(Users can look for teaching materials or ideas here.)

Notability: one of the note-taking apps that users can do hand writing, pdf annotation, voice recording, typing, and much more.

Conclusion

From the classes in these visiting schools, I found that educators implemented student-centered learning by promoting student voices in the classroom and beyond. They empowered learners to take charge of what they had learned and how they learned. When technology was integrated into lessons properly, students usually first had a good understanding of how to use the technology that I mentioned above. Some instructors use “Schoology” every day. They post the homework assignments/

answers to the problems on it, and they even post websites for the students to do their research before/after class. When an instructor attempts to bring technology into the classroom, he/ she will no longer be the only center of attention. This will also move learners from passive receivers to active participants in their own learning process.

Based on these diverse grouping mechanisms and effective course designs in different subjects, teachers give learners enough autonomy to make decisions, engage actively with materials, make mistakes and go deeper at the students own pace. Some challenges for a teacher are creating cooperative learning groups and time management. The teacher needs to know a lot about their students, like the learning style/personality of learners. These are just a few questions a teacher needs to ask. Teacher Mr. Young pointed out that the teacher wants to challenge the students without making them feel too overwhelmed. Instructors want students who will work well together without always one student doing most of the work. Another challenge for the teacher is that the teacher needs to be flexible because students are taking responsibility for their learning. The teacher becomes a facilitator guiding the students and making sure that the students adhere to their schedule to complete the task. Even though cooperative learning takes some time to implement, students have the opportunity to practice critical skills in interacting with others and thinking critically. The importance of cooperative learning is the longer lasting effects of having students come to an understanding about what they learned and why/how to get there, instead of taking down notes and memorizing a lecture.

From the teaching beliefs and courses of these educators, I learned that when the classroom is well-constructed with a collaborative learning environment and educators' instructions, an instructional shift to hand over the control of the learning to the students can happen. The wonderful scenes that learners explore information actively with peers, become engaged to internalize the content, and articulate their understanding confidently, can be a joy to see.

References

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Schoology https://ppt.cc/fWIl8x

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