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14. Collaborative and Cooperative Learning: Innovative ways to Effective Learning

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Abstract

As we know from our recent trends in the field of education, student engagement and attainment is a high priority for many schools. While the purpose of these pedagogical methods is the same - to provide students with opportunities to engage with each other in thoughtful learning - it is important that teachers understand the differences if they are both to be used effectively in the classroom.

When it comes to students working together, the terms collaborative learning and cooperative learning are often used interchangeably. There are still some key differences; with collaborative learning, students make individual progress in tandem with others. Cooperative learning involves more inherent interdependence, promoting greater accountability.

Key words: - Collaborative learning, Cooperative learning, Pedagogical Method

Introduction

Collaborative learning is a situation in which two or more people learn or attempt to learn something together. Unlike individual learning, people engaged in collaborative learning capitalize on one another's resources and skills (asking one another for information, evaluating one another's ideas, monitoring one another's work, etc.). More specifically, collaborative learning is based on the model that knowledge can be created within a population where members actively interact by sharing experiences and take on asymmetry roles. Put differently, collaborative learning refers to methodologies and environments in which learners engage in a common task where each individual depends on and is accountable to each other. These include both face-to-face conversations and computer discussions (online forums, chat rooms, etc.). Methods for examining collaborative learning processes include conversation analysis and statistical discourse analysis.

Collaborative learning is heavily rooted in Vygotsky's views that there exists an inherent social nature of learning which is shown through his theory of zone of proximal development. Often, collaborative learning is used as an umbrella term for a variety of approaches in education that involve joint intellectual effort by students or students and teachers. Thus, collaborative learning is commonly illustrated when groups of students work together to search for understanding, meaning, or solutions or to create an artifact or product of their learning. Further, collaborative learning redefines traditional student-teacher relationship in the classroom which results in controversy over whether this paradigm is more beneficial than harmful. Collaborative learning activities can include collaborative writing, group projects, joint problem solving, debates, study teams, and other activities. The approach is closely related to cooperative learning.

Alternatively, collaborative learning occurs when individuals are actively engaged in a community in which learning takes place through explicit or implicit collaborative efforts. Collaborative learning has often been portrayed as solely a cognitive process by which adults participate as facilitators of knowledge and children as receivers. However, Indigenous communities of the Americas illustrate that collaborative learning occurs because individual participation in learning occurs on a horizontal plane where children and adults are equal. Thus collaborative learning also occurs when children and adults in engage play, work, and other activities together

What are Cooperative and Collaborative learning?

Collaborative learning is a method of teaching and learning in which student's team together to explore a significant question or create a meaningful project. A group of students discussing a lecture or students from different schools working together over the Internet on a shared assignment are both examples of collaborative learning

Cooperative learning, which will be the primary focus of this workshop, is a specific kind of collaborative learning. In cooperative learning, students work together in small groups on a structured activity. They are individually accountable for their work, and the work of the group as a whole is also assessed. Cooperative groups work face-to-face and learn to work as a team. In small groups, students can share strengths and also develop their weaker skills. They develop their interpersonal skills. They learn to deal with conflict. When cooperative groups are guided by clear objectives, students engage in numerous activities that improve their understanding of

place, three things are necessary. First, students need to feel safe, but also challenged. Second, groups need to be small enough that everyone can contribute. Third, the task students' work together on must be clearly defined. The cooperative and collaborative learning techniques presented here should help make this possible for teachers.

Also, in cooperative learning small groups provide a place where:

- learners actively participate;
- teachers become learners at times, and learners sometimes teach;
- respect is given to every member;
- projects and questions interest and challenge students;
- diversity is celebrated, and all contributions are valued;
- students learn skills for resolving conflicts when they arise;
- members draw upon their past experience and knowledge;
- goals are clearly identified and used as a guide;
- research tools such as Internet access are made available;
- Students are invested in their own learning.

Cooperative and Collaborative learning: differ from the traditional approach.

- Cooperative and collaborative learning differ from traditional teaching approaches because students work together rather than compete with each other individually.
- Collaborative learning can take place any time students' work together -- for example, when they help each other with homework. Cooperative learning takes place when students work together in the same place on a structured project in a small group. Mixed-skill groups can be especially helpful to students in developing their social abilities.
- The skills needed to work together in groups are quite distinct from those used to succeed in writing a paper on one's own or completing most homework or "seatwork" assignments. In a world where being a "team player" is often a key part of business success, cooperative learning is a very useful and relevant tool.
- Because it is just one of a set of tools, however, it can easily be integrated into a class that uses multiple approaches. For some assignments individual work may be most efficient, while for others cooperative groups work best.

- Research suggests that cooperative and collaborative learning bring positive results such as deeper understanding of content, increased overall achievement in grades, improved self-esteem, and higher motivation to remain on task. Cooperative learning helps students become actively and constructively involved in content, to take ownership of their own learning, and to resolve group conflicts and improve teamwork skills.

Collaborative learning

Collaborative learning is based on the view that knowledge is a social construct. Collaborative activities are most often based on four principles:

- The learner or student is the primary focus of instruction.
- Interaction and "doing" are of primary importance
- Working in groups is an important mode of learning.
- Structured approaches to developing solutions to real-world problems should be incorporated into learning.

Collaborative learning can occur peer-to-peer or in larger groups. Peer learning, or peer instruction, is a type of collaborative learning that involves students working in pairs or small groups to discuss concepts, or find solutions to problems. This often occurs in a class session after students are introduced to course material through readings or videos before class, and/or through instructor lectures. Similar to the idea that two or three heads are better than one, many instructors have found that through peer instruction, students teach each other by addressing misunderstandings and clarifying misconceptions. Group work or collaborative learning can take a variety of forms, such as quick, active learning activities in class or more involved group projects that span the course of a semester.

Collaborative Learning

Collaborative learning is an educational approach to teaching and learning that involves groups of learners working together to solve a problem, complete a task, or create a product. Collaborative learning is based on the idea that learning is a naturally social act in which the participants talk among themselves. It is through the talk that learning occurs.

There are many approaches to collaborative learning:

1. Learning is an active process whereby learners assimilate the information and relate this new knowledge to a framework of prior knowledge.

2. Learning requires a challenge that opens the door for the learner to actively engage his/her peers, and to process and synthesize information rather than simply memorize and regurgitate it.
3. Learners benefit when exposed to diverse viewpoints from people with varied backgrounds.
4. Learning flourishes in a social environment where conversation between learners takes place. During this intellectual gymnastics, the learner creates a framework and meaning to the discourse.
5. In the collaborative learning environment, the learners are challenged both socially and emotionally as they listen to different perspectives, and are required to articulate and defend their ideas. In so doing, the learners begin to create their own unique conceptual frameworks and not rely solely on an expert's or a text's framework.

Thus, in a collaborative learning setting, learners have the opportunity to converse with peers, present and defend ideas, exchange diverse beliefs, question other conceptual frameworks, and be actively engaged.

Collaborative learning (CL) is instruction that involves students working in teams to accomplish a common goal, under conditions that include the following elements (Johnson, Johnson, and Smith, 1991):

1. **Positive interdependence.** Team members are obliged to rely on one another to achieve the goal. If any team members fail to do their part, everyone suffers consequences.
2. **Individual accountability.** All students in a group are held accountable for doing their share of the work and for mastery of all of the material to be learned.
3. **Face-to-face promotive interaction.** Although some of the group work may be parcelled out and done individually, some must be done interactively, with group members providing one another with feedback, challenging one another's conclusions and reasoning, and perhaps most importantly, teaching and encouraging one another.
4. **Appropriate use of collaborative skills.** Students are encouraged and helped to develop and practice trust-building, leadership, decision-making, communication, and conflict management skills.

5. **Group processing.** Team members set group goals, periodically assess what they are doing well as a team, and identify changes they will make to function more effectively in the future.

Collaborative learning is not simply a synonym for students working in groups. A learning exercise only qualifies as Collaborative learning to the extent that the listed elements are present.

Benefits of Collaborative learning

1. Develops higher level thinking skills
2. Promotes student-faculty interaction and familiarity
3. Increases student retention
4. Builds self-esteem in students
5. Enhances student satisfaction with the learning experience
6. Promotes a positive attitude toward the subject matter
7. Develops oral communication skills
8. Develops social interaction skills
9. Promotes positive race relations
10. Creates an environment of active, involved, exploratory learning
11. Uses a team approach to problem solving while maintaining individual accountability
12. Encourages diversity understanding
13. Encourages student responsibility for learning
14. Involves students in developing curriculum and class procedures
15. Students explore alternate problem solutions in a safe environment
16. Stimulates critical thinking and helps students clarify ideas through discussion and debate
17. Enhances self-management skills
18. Fits in well with the constructivist approach
19. Establishes an atmosphere of cooperation and helping school wide
20. Students develop responsibility for each other
21. Builds more positive heterogeneous relationships
22. Encourages alternate student assessment techniques
23. Fosters and develops interpersonal relationships



24. Modelling problem solving techniques by students' peers
25. Students are taught how to criticize ideas, not people
26. Sets high expectations for students and teachers
27. Promotes higher achievement and class attendance.
28. Students stay on task more and are less disruptive
29. Greater ability of students to view situations from others' perspectives (development of empathy)
30. Creates a stronger social support system
31. Creates a more positive attitude toward teachers, principals and other school personnel by students and creates a more positive attitude by teachers toward their students
32. Addresses learning style differences among students
33. Promotes innovation in teaching and classroom techniques
34. Classroom anxiety is significantly reduced
35. Test anxiety is significantly reduced
36. Classroom resembles real life social and employment situations
37. Students practice modelling societal and work related roles
38. Collaborative Learning is synergistic with writing across the curriculum
39. Collaborative Learning activities can be used to personalize large lecture classes
40. Skill building and practice can be enhanced and made less tedious through CL activities in and out of class.
41. Collaborative Learning activities promote social and academic relationships well beyond the classroom and individual course
42. Collaborative Learning processes create environments where students can practice building leadership skills.
43. Collaborative Learning increases leadership skills of female students
44. In colleges where students commute to school and do not remain on campus to participate in campus life activities, CL creates a community environment within the classroom.

Strategies

Think-Pair-Share: (1) The instructor poses a question, preferable one demanding analysis, evaluation, or synthesis, and gives students about a minute to think through an

appropriate response. This "think-time" can be spent writing, also. (2) Students then turn to a partner and share their responses. (3) During the third step, student responses can be shared within a four-person learning team, within a larger group, or with an entire class during a follow-up discussion. The caliber of discussion is enhanced by this technique, and all students have an opportunity to learn by reflection and by verbalization.

Three-Step Interview: Common as an ice-breaker or a team-building exercise, this structure can also be used also to share information such as hypotheses or reactions to a film or article. (1) Students form dyads; one student interviews the other. (2) Students switch roles. (3) The dyad links with a second dyad. This four-member learning team then discusses the information or insights gleaned from the initial paired interviews.

Simple Jigsaw: The faculty member divides an assignment or topic into four parts with all students from each LEARNING TEAM volunteering to become "experts" on one of the parts. EXPERT TEAMS then work together to master their fourth of the material and also to discover the best way to help others learn it. All experts then reassemble in their home LEARNING TEAMS where they teach the other group members.

Numbered Heads Together: Members of learning teams, usually composed of four individuals, count off: 1, 2, 3, or 4. The instructor poses a question, usually factual in nature, but requiring some higher order thinking skills. Students discuss the question, making certain that every group member knows the agreed upon answer. The instructor calls a specific number and the team members originally designated that number during the count off respond as group spokespersons. Because no one knows which number the teacher will call, all team members have a vested interest in understanding the appropriate response. Again, students benefit from the verbalization, and the peer coaching helps both the high and the low achievers. Class time is usually better spent because less time is wasted on inappropriate responses and because all students become actively involved with the material.

Conclusion

Cooperative learning is defined by a set of processes which help people interact together in order to accomplish a specific goal, whereas the underlying premise of collaborative learning is based upon building compromise through the teamwork displayed by group members. Research suggests that both cooperative and collaborative learning ultimately bring positive



results for students such as a deeper understanding of content, increased self-esteem and a higher motivation to remain focused on tasks.

In essence, cooperative learning can be described as a more 'managed' approach as it stresses comprehension of facts and the development of cognitive, personal and social skills, whereas collaborative learning is more focused on the development of autonomy and knowledge construction. The skills needed to work together in a group are transferrable throughout academic, professional and personal life – a lot of value is placed on how individuals can work as part of a team – so it makes sense that team building should be an integral part of any learning environment.

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