Collaboration

Collaboration means ‘to work jointly with others, especially in an intellectual endeavour’. It means ‘association, ‘teamwork’, ‘joint effort’ or ‘partnership’. In the context of learning, collaboration means the teamwork or joint effort by the learners to achieve a common goal, such as solving to a problem, complete a project, or developing a new product. For our understanding, collaborative learning is the use of small groups of students who are instructed by the teacher to work together to maximize their own and each other’s learning. The teacher identifies the most important goal within each lesson, designs collaborative activities to achieve that goal, and implements them.

What is Collaborative Learning?

Collaborative learning is a teaching-learning technique, which creates an environment where the learners work in collaboration with other learners to achieve a common learning goal. Collaborative learning is considered an umbrella term for a variety of educational approaches involving joint intellectual effort by students, or students and teachers together.

Theories of collaborative learning

The concept of collaborative learning is based on several theories. In the 1920s, the Russian Psychologist Lev Vygotsky introduced the concept of the “zone of proximal development” (ZPD). According to him, a child, when assisted by a more capable person, is able to learn new skills or gain knowledge and gradually is able to independently gain more knowledge and skills without any such help.

This theory assumes that a child can develop new knowledge and skills in an environment, which does not need a teacher per se, but has all the other elements, such as the various stimuli required for learning.

Another concept that helped in the development of the concept of collaborative learning was the theory of cooperation and competition propounded by Morton Deutsch in 1949. The theory is based on human psychology and deals with the effect of cooperation upon the functioning of a group. It says that the most important factor in cooperation is the goal; all individuals in the group should have a common goal (or interdependent goal). For the cooperation to be successful, all individuals should carry out the following:

i) locomotion (movement in an objective social space, e.g., progress of the psychological attitude in a problem solving situation),

ii) facilitating locomotion of other members,

iii) gaining attraction of the members through contribution of mental or emotional energy towards the goal (positive cathexis) and

iv) positively influence others and therefore the outcome (positive inducibility).

Thus we find that cooperation not only helps achieve the common goals, but also is instrumental in the enhancement of positive attributes in an individual.

Cooperative learning is another option to competitive learning or individualistic learning. In an ideal classroom that employs the cooperative learning method, all students would learn not only to work autonomously on their own but also to how to work cooperatively with others, and compete for fun and enjoyment. In 1999, Pierre Dillenbourg, a Belgian educational psychologist opined that there is a slight difference between cooperative learning and collaborative learning. According to him, in cooperation, partners split the work, solve sub-tasks individually and then assemble the partial results into the final output. In collaboration, partners do the work 'together'. Therefore, we still need to understand how learning events themselves take place in the interactions between participants.

Thus, today's educational psychologists are divided over cooperative and collaborative learning. As more and more research is taking place in this area, we are being able to understand the concept of collaborative learning better.

Process of collaborative learning

To understand collaborative learning, it is important to first understand how learning takes place. In 1992, Barbara Leigh Smith and Jean T. MacGregor, provided the following prevalent theories about the learning process and then, based on these theories, defined the process of collaborative learning:

1) During the learning process, students take in the new information and relate this to a framework of prior knowledge.

2) Active learning requires a stimulus or challenge for the learner to actively engage his/her peers, and to process and synthesize information rather than simply memorize and regurgitate it.

3) Learning happens when learners are exposed to diverse viewpoints from

people with varied backgrounds.

4) In a social environment where conversation between learners takes place,

the learning process is enhanced. In this environment, learner creates a

framework and meaning to the conversation.

According to Smith and MacGregor, in the collaborative learning environment,

learners receive a stimulus to engage and converse with their peers. They are

exposed to different viewpoints. In such an environment, learners begin to create

their own learning frameworks rather than relying solely on what has been told

to them by the teacher or what is written in the textbooks. Thus, in a collaborative learning setting, learners can converse with peers, present and defend ideas, exchange diverse beliefs, question other conceptual frameworks, and be actively engaged.

Benefits of collaborative learning

Research has revealed that collaborative learning has many benefits. Some of these are described below:

1) It enhances learning: Collaborative learning generates a strong stimulus in the subject matter. It increases an interest and enables student to participate in the discussions and problem solving. Students help each other, which raises the performance levels of all. It improves learner satisfaction.

2) It develops the critical thinking abilities: As students enhance their skills of writing and oral presentation, their critical thinking is developed.

3) It develops social skills: In the collaborative environment, students are exposed to diverse cultures and share their thoughts and understanding of the tasks. They are able to access a much wider set of solutions. This enables students to appreciate other cultures, develops tolerance and acceptance of others' viewpoints. All these experiences develop their social skills.

If collaborative learning method is designed in such a way that students are interdependent and work as a team to achieve the desired goals, it results in desirable learning outcomes such as skills of critical thinking, precise writing, clear argumentation, and competency in oral presentations. Thus, the specific pedagogical benefits of collaborative learning include development of critical thinking skills, co-creation of knowledge and meaning, reflection, and transformative learning. Other benefits include the development of interpersonal skills and organizational skills. The lists some of the important interpersonal and organizational skills.

Some important interpersonal and organizational skills:

Sl.No.	Interpersonal Skills	Organisational skills
1.	Verbal and Non-verbal communication	Planning
2.	Listening skills	Scheduling
3.	Negotiation	Communication
4.	Problem-solving	Delegation

5.	Decision-making	Coordinating resources
6.	Assertiveness	Time management

Instructional design for collaborative learning

It is important to understand how to design appropriate activities for collaborative learning. The duration of the activities may run for the entire class period, an entire academic session or even for longer periods. Let us first know about some of the activities that can be included in collaborative learning.

1) Think-pair-share: The teacher poses a question and students write down the answers and exchange with their fellow students. Then they discuss why they agree or disagree with each other. The purpose is to provide reflection time, promote participation and provide opportunity to the students to share their thinking.

2) Jigsaw strategy: Each student in a group is asked to read a small part from a large chunk of study material and become an expert of it. Then this student is asked to teach it to his/her group mates. This strategy works best with language and grammar. The purpose is to enable students to promote interdependence, where students are made dependent on each other to succeed.

3) Circle of voices: Students sit in a circle. They are given a topic to discuss and time to think. Each student uninterruptedly speaks for about three minutes. Nobody is allowed to speak in between. The next speaker is asked to build on the idea that the earlier speaker has given. The purpose is to enable students to talk, and talk with intelligence and enthusiasm.

4) Case study: Provide a case study to a group of students. Allow them to study it and analyse. Ask them to present their views after some time. The purpose is to extend students' understanding of a complex issue and enable analysis, which enhances their critical thinking and analytical skills.

5) Fish bowl: In this method, one group of students observes another group of students. The first group sits and discusses a topic or idea. The second group sits in a circle around the first group and listens to their discussion. Then the second group presents their analysis, evaluation, etc., on the ideas provided by the first group. The purpose is to develop listening skills in the students. It also helps students to contribute their ideas to a discussion.

6) Problem solving: A group of students is provided with a problem, which they strive to solve with guidance from the teacher, and discover the final solution. The purpose is to provide students an environment where they can work through the various steps of problem solving, namely, definition of the problem or the purpose of problem solving, situation, problem, causes, solvable causes, issues and solution.